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ABSTRACT

This study investigated effects of total integration on manifest behavior and skill development of young handicapped and nonhandicapped children (N=148 of each) and their families. A secondary focus was to delineate and describe the program curricula and structure of the Center for Teaching and Learning (University of North Dakota) preschool program. Primary data sources were the Child Application Form and Background Information Form completed upon each child's entry, periodic developmental assessment, and a family questionnaire assessing satisfaction with the program and similar attitudes. The program is described in depth, including training experiences for high school, undergraduate, and graduate students, as well as family profiles and outcomes for children's skills in fine and gross motor activity, speech/language, general knowledge and preacademic preparation. Results indicated numerous benefits in terms of skill gains and social integration for both handicapped and nonhandicapped participants and high degrees of enthusiasm from participant families. Contains about 110 references. (PB)

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TOTAL INTEGRATION:
YOUNG CHILDREN LEARNING TOGETHER

A Three Year Research Study
of the
CTL Preschool Program

Center for Teaching and Learning
University of North Dakota
April, 1990

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This monograph is dedicated to the children, families and staff of the CTL Preschool Program. The hard work, faith, trust, and enthusiasm of each person involved with this study, has contributed to the strength of the results. The message is clear. We all learn together, and together is how we want to be.

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Finally, thanks go to all the community professionals whose belief in Integration, and support for the program, allowed one person's dream to become a reality for young children and their families.

L.A.R.

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It has been a pleasure and privilege to serve as the Director of the CTL Preschool Program since September, 1986. I have had the opportunity to come to know, and work with a large group of children, families, students, and professionals. My greatest joy has come in the development and implementation of a Total Integration Model, which forms the operational framework for the CTL Preschool Program. The extent to which the results of the program have validated my personal and professional belief in the importance of Integration, is both rewarding and exciting. This monograph is written for families and professionals who are exploring the concept of Integration.

As the CTL Preschool Program has developed and emerged as a program inclusive of all children and families, I have been repeatedly asked where I learned of Total Integration as an educational approach for young children. My response has been that I have never visualized programming for young children in any other manner. This response is based solely on my own personal and professional experiences, and in a sense, perhaps, "not knowing any better." Allow me illustrate.

When I began my teaching career, I was employed by a school district that was "long" on creativity, and "short" on budget. I began teaching before Public Law 94-142 was reality, and before there was acknowledgement of the importance of early intervention.

I was a Kindergarten teacher, having just completed my undergraduate degree in Elementary and Early Childhood Education. I had no formal training in Special Education, and prior to my first day of teaching, felt no need for such training.

Facing my first class of seventy-five Kindergarteners (really!) and their families, I quickly realized that each child was unique, and were all ready to share an experience called "The First Day of School." But, I was overwhelmed by the numbers of children, and even more overwhelmed by their individual needs. I assumed that since I was the teacher, I should know what to do, and should "just do it."

The most powerful memory I have of that first day of teaching is of a little boy named Phillip. Phillip was sitting, alone, in the hallway, opposite the classroom door. His family had brought him to school, and left him there to wait. He was wearing blue pants and a red and white checked shirt. There was a large note pinned to his shirt which said, "My name is Phillip. I am normal."

The note was wet with Phillip's saliva, and I noticed that he drooled quite a bit. It was not until he attempted to stand up and enter the room, that I felt the impact of his note. Phillip could not stand without assistance, and he had a very difficult time walking into the classroom. I welcomed him to school, and asked him what he'd like to play with. Phillip pointed to the blocks and trucks, and went to play. It was not until later that I discovered that Phillip's speech was almost unintelligible, and that his ability to use his hands and arms was as limited as his use of his feet and legs. But, he was at school, and he was a part of my classroom.

I couldn't forget the message on his note. Each time I looked at Phillip, it repeated itself: "I am normal." Yes, I thought, you are...and it's my job to treat you that way. So began my education in the importance and power of Integration.

Phillip was not the only young child with a handicap who was a part of my first Kindergarten class. There were eighteen others, and there were no services available for these children until they reached seven years of age. Except for me, and I felt they had the right to the same school experiences as every other child. I saw my job as providing them with access to these experiences. And so I did.

That was my first integrated classroom. I realized, very early on, that what I provided for these children was not nearly as important as what their peers provided. It was obvious that the young children with handicaps learned best through peer modeling and imitation, and that my task was to provide the maximum opportunity for such experiences to occur. Soon, I couldn't see any other way to teach.

During the seven years I spent in Kindergarten teaching, I learned a great deal from the children and their families. Later, I learned that my classroom approach was called "Integration," and that I had been providing education for these children in the "Least Restrictive Environment."

At the time, I didn't stop to think that other teachers and educators didn't share my views. I only learned later that what I did was not always accepted by my colleagues. I also learned that young children with handicaps were, more often than not, separated from their nonhandicapped peers.

Armed with this "negative" knowledge, and my "positive" experiences, I began my search for a program model that was inclusive of all young children. When I discovered there wasn't one, I decided to build my own, implement it, and evaluate its impact. Eight years later, the CTL Preschool Program was born.

The outcomes of this study effectively demonstrate that what the children taught me is true. Young children benefit from being together, and it is their unquestionning acceptance of and support for each other, that makes the real difference. It is their enthusiasm for and acceptance of each other's accomplishments that permits adults to begin to understand, what these children already know: We All Belong Together.

When people ask me how to implement Integration, I tell them to watch the children, and they will show you how.

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CHAPTER ONE

LET'S GO TO PRESCHOOL...TOGETHER

> It is Monday morning at the CTL Preschool. The children begin to arrive at 8:15 a.m. As they come down the long hallway to the classrooms, teachers greet the children and their families.
>
> "Here come the guys. Good morning Fred, George and Peter. Time to go to school," the teacher says.
>
> As the three boys approach the classrooms, the teacher reminds them to hang up their coats and backpacks. The teacher converses briefly with each child's family and helps the children in taking off coats and hanging up backpacks.
>
> "Give them a kiss, and let's go to school", says the teacher. The children hurriedly provide kisses and waves goodbye, and enter the classroom. Another preschool morning has begun.

A similar scenario occurs in preschools and daycares across the nation each morning as young children begin their day, and parents proceed to work, school, and other activities. But there is something strikingly different about Fred, George and Peter's arrival at the CTL Preschool. While all three are energetic, inquisitive, bright and charming three and one half year old boys, there are some differences. George is a child with Spina Bifida, and Peter is a child with severe visual impairment, while Fred is a nonhandicapped child. The three boys are friends, and their families have become friends as a result of the boys' friendship and attendance at the CTL Preschool Program.

The boys and their families did not know each other prior to the children's enrollment in the CTL Preschool program, and the families indicate that if it were not for the boy's preschool experience they would likely not have become acquainted. George's family reported that many adults and children shy away from, or ignore George because he is in a wheelchair. Fred's family admits that they might not have permitted Fred to play with George and Peter, out of their own "fears" and, as they put it, "not knowing" any better how to overcome them. The three families have become good friends, because of their children's friendship, and they all admit that the CTL Preschool has provided them with a new perspective on diversity, and the importance of integration.

These families experiences are similar to what other families involved with the CTL Preschool report. The benefits of integration, where all children learn and play together, reach well beyond the child's experiences, providing families with diverse and rich experiences which they report "change the way" they think.

Total Integration is the operational philosophy of the CTL Preschool Program at the University of North Dakota in Grand Forks. Forty of the eighty children enrolled in the Program are young children with handicaps; the rest of the children are nonhandicapped peers. The program recognizes and rejoices in each child's individuality, and no distinctions are made between children and their individual differences.

The Total Integration philosophy and framework of the CTL Preschool is not "high-tech," "mystical" or "magical." The program rests on the premise that all children are children first, and handicapped or nonhandicapped, second. The program believes that all children learn best from each other, and do not want to be separated from their peers by "differences" perceived and imposed by adults. The program recognizes that young children do not perceive differences between and amongst each other unless those differences are pointed out by the adults in their environment.

Total Integration is a logical and developmentally appropriate approach to early education. It recognizes and embraces established young child learning theories and principles of human behavior. Total Integration requires of families and staff the recognition that all children are, quite simply, children. Total Integration, is "A State of Mind". As one father pointed out, "This program makes such logical sense. I can't believe I never thought of it this way before."

THE CTL PRESCHOOL PROGRAM: A Descriptive Chronology

The CTL Preschool Program serves as the clinical training site for the Early Childhood Special Education Training Program in the Center for Teaching and Learning, at the University of North Dakota. The program is staffed by graduate and undergraduate students, who work under the direct supervision of the CTL Preschool Director, who is a faculty member in the Department of

Special Education.

The CTL Preschool program is located in the community of Grand Forks, North Dakota, which encompasses a population of approximately 60,000. The program was begun on a small scale in 1978 with federal monies provided for the development of professional training programs in Special Education.

From 1978 to 1986, the program philosophy was more closely aligned with the Mainstreaming model, where several young handicapped children attended preschool with greater numbers of nonhandicapped children. In 1986, the program underwent significant change, and adopted the philosophy of Total Integration as the operational framework for the program.

The change in program framework in 1986 was accompanied by significant expansion of the number and types of children enrolled. Prior to 1986, the program enrolled an average of twelve (12), three to five year old children each semester, and the ratio of handicapped children to nonhandicapped was one to four. In September, 1986, twenty two (22) children were enrolled, half of whom were young children with handicaps. The children were matched by chronological age to insure that each handicapped child had a like-aged, nonhandicapped peer as a model for language, behavior and other age appropriate developmental skills.

SIX MONTHS INTO THE PROGRAM:
1987, Continued Expansion

The program gained visibility across the 1986-87 academic year, and the 1987 summer session enrollment expanded to include forty (40) children. The 1987 summer session provided an experimental model for the inclusion of thirteen (13) severely, multiply handicapped children who were served by the Public School Preschool Special Needs Program during the school year. The summer program was the children's first experience with nonhandicapped peers in an integrated educational setting. The effects of the summer experimental program solidified the Total Integration model as a program framework that provided equal access for all children and facilitated developmental skill gains not previously achieved within a more segregated setting.

Many of the handicapped children who joined the program for the 1987 summer session remained for the following academic year through dual enrollment between the CTL Preschool and the Public School Preschool Special Needs Program. With the larger number of children desiring enrollment, the CTL Preschool again expanded, enrolling fifty (50) children for the Fall, 1987 semester. The summer experimental program had documented that all children benefitted from integration, and that the program would be faced with the chronic need to expand in order to meet the increased demand for integrated services.

TWELVE MONTHS INTO THE PROGRAM:
1987, The Search for a New Environment

From the program's beginning in 1978, the CTL Preschool had been housed in three adjoining classrooms on the third floor of the Education Building. Although the classrooms were spacious, brightly painted and decorated, the children and families had to climb three flights of stairs, or ride the elevator to reach the classroom. Any third floor is not the most accessible location for a preschool classroom, nor is it an appropriate physical location for young children. The program had no access to a playground facilty or large, indoor room for gross motor activities, which seriously limited the inclusion of these activities on a daily basis.

The CTL Preschool began searching for an alternative site in the fall of 1987. The program not only needed additional physical space in order to expand the number of children served, but more accessible space to accomodate additional child activities.

In October, 1987, the CTL Preschool Director began discussion with the Superintendent of the North Dakota School for the Blind about the possibility of housing the CTL Preschool within the School for the Blind facility. The School for the Blind is located on the perimeter of the university campus in a large, modern, single story building with classrooms, gymnasium, dormitory facilities and two adaptive outdoor playgrounds.

Since the School for the Blind had been transporting its preschool children to the CTL Preschool for two semesters to provide these young children with access to sighted peers, housing the two programs within the same facility would also eliminate the need to transport children between programs. The School for the Blind also had available physical space. An agreement to share physical facilities was reached in December, 1987. The agreement specified that it was an "experimental arrangement" which would be evaluated after a six month trial perod, with a more permanent arrangement made if both programs were satisfied with the arrangement.

Housing an integrated preschool program within a facility viewed by the community-at-large as an "institution," permitted integration to occur on a larger scale. The CTL Preschool brought the "community" to the "institution" on a daily basis, in effect "deinstitutionalizing" the School for the Blind, "from the outside, in."

The staff of the School for the Blind were somewhat hesitant about the proposed arrangement, and feared that the preschool children and their parents might be "afraid" of the students at the School. They feared that their students might be viewed negatively by these community members, and that other negative outcomes might result. At the opposite end of the "worry" scale, the CTL Preschool Staff were concerned that the noise and activity level which accompanies fifty, two to five year old children, might interfere with the operation of the School causing "chaos" to reign in otherwise "serene" surroundings.

SIXTEEN MONTHS INTO THE PROGRAM:
1988, A Shared Facility and Expanded Program

The program began operation in its new facility in January, 1988. None of the concerns voiced by either program were borne out, and the outcomes of the new physical arrangement resulted in many unanticipated positives. For example, the School for the Blind staff reported that they enjoyed the noise and the "patter of little feet" to such an extent that when the preschool spring semester ended the staff indicated they were disappointed that the "noise" would be gone. The preschool children accepted the School for the Blind students as they accepted their peers, without question or concern. Several preschool families indicated that the exposure to a more varied group of children, adolescents and adults was positive in dispeling prejudices and fears which they experienced towards older individuals with disabilities.

The clear majority of preschool families, university students and community professionals had never been inside the School for the Blind, and had a very limited understanding of its mission and purpose. The combination of the two programs facilitated community visitation to and awarenss of the School for the Blind program, and continued to facilitate the "breaking down of the walls of the institution." The "experimental arrangement" became permanent in August, 1988, and the CTL Preschool Program remains housed in the North Dakota School for the Blind.

The change in physical location, with its increased space and more appropriate facility, permitted the CTL Preschool to expand the number of children served and the diversity of its curriculum. In January, 1988, the preschool began enrolling two year old children, and was also able to add a Gross Motor/Gym Time component and Outdoor Play component to its program. Additionally, the preschool was provided a Music Program by the School for the Blind. The Music Program is directed by the Music Instructor at the School, and preschool children attend Music for twenty minutes, twice weekly. The expansion of numbers of children served, and diversity of the curriculum resulted in postive effects for the children and families of the CTL Preschool.

TWENTY ONE MONTHS INTO THE PROGRAM:
1988, Experimental Summer Programs

The summer semester, 1988, brought three experimental components to the CTL Preschool. The preschool program agreed to:

> (1) establish a "Summer Satellite" program at the Grand Forks Air Force Base, to serve the children of military personnel stationed at the Air Base;
>
> (2) serve as the summer intervention program for the young children with handicaps from the Grand Forks and East Grand Forks Public School Preschool Special Needs programs; and,
>
> (3) enroll three to five year old children who had experienced difficulties during the community preschool screening process, providing these children with a diagnostic placement in which their needs could be identified.

More than two hundred (200) children made application for enollment in the summer program. Physical space availability permitted a total of one hundred twenty five (125), two to five year old children, to receive summer program services at the two program sites.

The Summer Satellite Program at the Air Base was located in two large classrooms in one public school building. The classrooms were across the hall from each other, allowing for flexibility in use of space, and permitting the children to be divided into two large groups, based on age. Forty (40) children were enrolled at the site. Many of the children enrolled at the Air Base site were children who had experienced difficulties during the Preschool Screening process, resulting in a population distribution which reflected equal numbers of handicapped, at-risk (those who had failed screening) and nonhandicapped children. The program format was identical to the main program, and the same operational schedule was followed.

The main site enrolled eighty-five (85) children for the summer, 1988 semester, with a population distribution similar to that at the Air Base. Eleven of the children enrolled at the main site were children from the East Grand Forks Public School Preschool Special Needs Program. These children received their summer intervention services through the CTL Preschool program under contractual arrangement with the East Grand Forks Public Schools. Seventeen children from the Grand Forks Public Schools Preschool Special Needs Program were enrolled and received their summer intervention services under contractual arrangement with the Grand Forks Public Schools.

At the close of the summer semester the enrollment of children who had experienced difficulties on Preschool Screening measures was evaluated. Results of the evaluation indicated that providing these children with a preschool setting in which diagnostic activities could be carried out was positive. The approach provided these children with ample time to demonstrate skills and abilities, and provided professionals with a naturalistic environment in which to determine these children's needs. A decision was made to continue this program component during the summer, 1989 semester.

Program outcomes for the East Grand Forks children enrolled in the CTL Preschool were positive. The East Grand Forks School District requested that the feasibility of establishing a satellite program in East Grand Forks during the summer, 1989 semester, be explored.

The Air Base program was also well received, and families began to lobby for the program to be housed permanently at the Air Base site. Since the CTL Preschool program was occupying classroom space which would be used during the school year by the Preschool Special Needs Program and the Head Start program, the feasibility of the Preschool remaining at the Air Base during the school year was not possible. However, a decision was made to bring the Satellite program to the Air Base the following summer, and families were offered the option of enrollment at the main program site during the school year.

TWENTY FOUR MONTHS INTO THE PROGRAM:
1988, Permanent Enrollment Expansion

As with all successful programs, the number of children seeking enrollment in the CTL Preschool Program far exceeded the physical space available, and by the fall, 1988 there were as many children on the waiting list for enrollment as there were children enrolled in the program. The physical space available at the School fr the Blind could reasonably accomodate eighty (80) children. The CTL Preschool program decided that eighty children would be its maximum enrollment capacity. The fall, 1988 and spring, 1989 semesters enrolled eighty (80) children, while the waiting list continued to expand.

By the close of the spring, 1989 semester, it became obvious that the CTL Preschool program needed to expand, yet again. A search began for a building to adequately house an expanded program. That search continues to date, without successful location of appropriate and adequate physical space.

THIRTY THREE MONTHS INTO THE PROGRAM:
1989, Summer Experimental Programs

The 1989 Summer Program permitted the Satellite program to return to the Air Base site. Forty (40) children were enrolled at the Air Base site. A Satellite program was developed in East Grand Forks, Minnesota, and forty (40) children were enrolled at that site.

The main site enrolled one hundred ten (110) children for the summer semester. The increased enrollment at the main site was made possible by additional classroom space allocation by the School for the Blind for the summer semester program. The expansion of the summer program was beneficial in responding positively to several area school districts who sought summer intervention services for their young children with handicaps. The 1989 summer program served young children with handicaps from six school districts within a fifty mile radius of Grand Forks. The summer, 1989 program enrolled a total of one hundred ninety (190) children across the three program sites.

TOTAL INTEGRATION AT WORK:
The Operational Philosophy of the Program

The philosophy of the CTL Preschool Program is based on Guralnick's (1978) description of Total Integration. Guralnick indicated that a program that was totally integrated included equal numbers of handicapped and nonhandicapped children, eliminating the concept of majority/minority groups. He further postulated that what was done for one child was done for all, so that no child would be made to feel different, or isolated in any manner.

Total Integration is not equivalent to Mainstreaming. Children who are mainstreamed are included within a majority group (nonhandicapped), but appear within this group in small, identifiable numbers. Mainstreaming does not allow for the child to be a member of a majority group, which fosters the differential treatment of the mainstreamed child within the majority (nonhandicapped) group.

The CTL Preschool Program operationalizes Total Integration, providing a developmentally sequenced, structured preschool program with individual adaptations made within the program to accomodate unique child needs. The children are grouped by chronological age, not by developmental age or ability, and the activities presented are age-level appropriate. The adaptations to accomodate individual needs are made by the child's teacher as he/she grants each child equal access to the activity.

The following set of principles govern the CTL Preschool's operation:

1. Every handicapped child enrolled will have a like-aged, nonhandicapped peer, providing each child with access to an age appropriate model to maximize imitative learning.

2. No distinctions will be made between handicapped and nonhandicapped children. There will be no discussion by adults, with children, that points out differences between and amongst children.

3. The "mystique" of adaptive equipment will be minimized by granting all children free access to explore these items. Young

children's natural curiosity will be encouraged by permitting all children to explore adaptive chairs, wheelchairs, strollers, amplification devices, glasses, splints, orthoses, etc. The children's questions about these devices will be answered in a straightforward manner, but without judgemental phrases by adults.

4. Independence is encouraged for all children, in all activities. The expectancy is not that the handicapped child will need help, and the nonhandicapped child will be able to proceed independently. The expectancy is that all children will be provided equal opportunity to proceed independently, and provided assistance when needed.

5. All children are entitled to an equal amount of teacher time, conversation, praise and assistance.

6. The classroom is a place for communicative interactions. All vocalizations, babbling, verbal speech, gesture, sign, eye gaze, and technology based communications are encouraged and reinforced. All children's interactions are responded to, valued, and praised.

7. To the maximum extent possible, related services such as Speech/Language Therapy, Occupational and Physical Therapy are provided within the classroom setting, minimizing the amount of time a child is separated from the group. If services must be delivered away from the large group, the therapist is encouraged to include a nonhandicapped peer in the service delivery, preventing the isolation of a handicapped child receiving therapy services.

8. Free Play is Free Play. Young children are amazingly creative, adaptive and inclusive in their play with others... particularly if adults don't interfere with suggestions or "advice."

9. Total Communication is the rule, not the exception. Speak, sign, gesture, use facial expression and body language in all communications. This approach assures maximum access to all communicative interactions for all children.

These operational principles assure equal access, for all children, to all aspects of the program. The principles require creativity and flexibility on the part of the teacher.

Wolfsenberger's (1972) "Principle of Normalization," complements Guralnick's concept of "Total Integration," and is an operational component supporting the CTL Preschool's daily operation. Wolfsenberger indicated that every handicapped child has the right to a normalized existence, and derives benefit from experiencing what his/her nonhandicapped peers experience.

The CTL Preschool's classroom structure and organization of the day reflects a compilation of typical nursery school, preschool and childcare activities, affording each child a normalized environment in which to grow and develop. The CTL Preschool provides a normal, young child, group environment for all children, overlaid with the stringent requirement that the group environment be accessible to all children. The "rule of thumb" is: When you plan an activity, you need to be able to think of at least ten ways to do the activity. If you come up with less than ten ways, you probably better plan a different activity!

INTRODUCTION TO THE CURRENT STUDY:
Thirty Six Months, and 296 Children Later

The integration of young children with handicaps and their nonhandicapped peers has long been an intervention approach of interest to researchers and practicioners (Blatt, 1958; Carroll, 1967; Dunn, 1968; Bricker & Bricker, 1971; Allen, Benning & Drummond, 1972; Bricker & Bricker, 1972; Brown, 1974; Budoff &

Gottlieb, 1976; Bricker, 1978; Fink and Sandall, 1978; Guralnick, 1978; Ipsa & Matz, 1978; Vincent, Brown, & Getz-Sheftel, 1981; Bricker, Bruder, & Bailey, 1982; Gil, 1983; Fewell, 1986; Bagnato & Kontos, 1987; Division for Early Childhood, 1987 (a); Odom & McEvoy, 1988; Bricker, Sainato & Lyon, 1989; Peck, Hayden, Wandschneider, Peterson, & Richarz, 1989; Templeman, Fredericks, & Udell, 1989). Numerous studies have been conducted relative to the positive and negative effects of integration with young children (MacMillan & Semmel, 1977; Fredericks, Baldwin, Grove, Moore, Riggs, & Lyons, 1978; Semmel, Gottlieb & Robinson, 1979; Strain & Kerr, 1981; Blacher & Turnbull, 1982; Turnbull & Winton, 1983; Turnbull, Winton, Blacher & Salkind, 1983; Bailey & Winton, 1987; Green & Stoneman, 1989).

Many of these studies focus on particular types of young children, i.e., disadvantaged children, children with Down's Syndrome, children with Autism, children with severe retardation, etc., and the results and benefits of integration for these children (Allen, Benning, & Drummond, 1972; Gottlieb & Siperstein, 1976; Harasymiw & Horne, 1976; Apolloni, Cooke, & Cooke, 1977; Antonak, 1980; Davis, 1980; McHale & Simmeonsson, 1980; Horne, 1983; Hoyson, Jamieson, & Strain, 1984; McEvoy, Nordquist, Twardosz, Heckaman, Wehby, & Denny, 1987; Wolpert, 1988). Many studies focus on the results of integration attempts with specific age groups of preschool children, limiting the generalizability of results to a more complete age range of young children typically found in preschool and childcare settings (Karnes, Wollersheim, Stoneburner, & Hodgins, 1966; Bricker & Sandall, 1979; Stephens & Braun, 1980). Many of these studies artificially control for integration, including it only during play, or during other selected activities, and permit it to exist only for prescribed periods of time (Strain & Timm, 1974; Shores, Hester, & Strain, 1976; Peterson & Haralick, 1977; Strain, 1977; Peck, Apolloni, Cooke, & Raver, 1978; Guralnick, 1981(b); Eckerman & Stein, 1982; Guralnick & Paul-Brown, 1984; Odom, Hoyson, Jamieson, & Strain, 1985; Odom & Strain, 1986; DeKlyen & Odom, 1989). Most of the studies cited have been conducted with small numbers of children, within experimental settings, which limits the generalizability of the results of these studies.

Partial Integration, Mainstreaming and Reverse Mainstreaming have been studied extensively (Greenbaum & Wang, 1965; Conine, 1969; Tringo, 1970; Gottlieb & Corman, 1975; Neisworth & Madle, 1975; Brightman, 1977; Galloway & Chandler, 1978; Harrasymiw, Horne, & Lewis, 1978; Burello & Sage, 1979; Parish, Dyck, & Kappes, 1979; Aloia, Knutson, Minner, & VonSeggern, 1980; Cavallaro & Porter, 1980; Bilken, 1985; Horne, 1985; Reichart, Lynch, Anderson, Svobodny, DiCola, & Mercury, 1989). Outcomes of these studies indicate that combining nonhandicapped and handicapped young children results in no significantly negative effects for either group, and often results in positive effects for both groups. These studies have focused on small groups of children, where one type of child (handicapped or nonhandicapped) is the minority within the majority group. The results of these studies have been interpreted with caution, due to small sample size, experimental environment, or other research-based reasons (Bricker, 1978; Ispa & Matz, 1978; Cooke, Ruskus, Apolloni, & Peck, 1981; Vincent, Brown, & Getz-Sheftel, 1981; Turnbull, 1982; Beckman, 1983; Gil, 1983; Peck & Cooke, 1983; Jenkins, Odom & Speltz, 1986; Division for Early Childhood, 1987(b); Guralnick, 1988; Odom & McEvoy, 1988; Tempelman, Fredericks, & Udell, 1989).

The difficulty of specifying the "treatment" provided to the young participants in previous studies has also limited generalizability and, more importantly, replication of these studies (Casto, 1988; Odom, 1988). Most studies have concerned themselves with observing child behavior within the setting, and have not accounted for the setting itself, the activities, or the personnel involved in direct interaction with the children. Many studies have brought Partial Integration, Reverse Mainstreaming, or Mainstreaming to existing programs, overlaying it on the philosophy and structure of the operating program. This approach makes it difficult to determine which variables are interacting, and the success or failure of integration may be significantly effected by the philosophical and methodological conflicts between the experimental treatment and the existing program (Efron & Efron, 1967; Jordan & Proctor, 1969; Kuhn, 1971; Panda & Bartel, 1972; Gottlieb, 1975; Gottlieb & Corman, 1975; Snyder, Apolloni & Cooke, 1977; Field, 1981; Frith & Edwards, 1981; Guralnick, 1981(a); Eckerman & Stein, 1982; Peck & Cooke, 1983; Gottlieb, Corman, & Curci, 1984; Burstein, 1986; Jenkins, Odom, & Speltz, 1986; Esposito, 1987; Carta, Sainato, & Greewood, 1988; Casto, 1988; Guralnick, 1988; Guralnick & Groom, 1988; Odom & McEvoy, 1988; Jenkins, Odom & Speltz, 1989).

The current study seeks to circumvent some of the previous research difficulties through the clear delineation of program environment, program components and curricula, provision of a large sample size, inclusion of a typical young child age range, and measured effects of integration on handicapped and nonhandicapped children. The study involves two hundred ninety six (296) children, ages two through six, who were enrolled in the CTL Preschool Program during the thirty six month period, September, 1986 through August, 1989.

As previously stated, the CTL Preschool Program operationalizes Guralnick's (1978) concept of Total Integration, enrolling equal numbers of handicapped and nonhandicapped children. The CTL Preschool program facilitates data collection within a setting where integration is the operational premise, rather than an experimental component added to an existing program. The size of the population, and the characteristics of the population, are broad and varied, permitting generalizability of results to a wide audience. Daily program activity logs have been maintained by the program, permitting specific discussion of types of activities and experiences provided the children enrolled, promoting a greater opportunity for program replicability.

The current study is based on the following foundational premises:

1. School is a place where all children gather;

2. Young children learn through imitation;

3. Prejudice and discrimination are the result of lack of first-hand information and positive experiences

with heterogeneous groups;

4. Total Integration makes no group a minority, and therefore "different";

5. Integration cannot be "taught" or "learned," as it is not comprised of specific skills or competencies; and,

6. Integration is a State of Mind.

FOCUS OF THE STUDY

The study seeks to investigate the effects of Total Integration on the manifest behavior and skills development of young handicapped and nonhandicapped children and their families. A secondary focus of the study is to delineate and describe the program curricula and structure, postulating direct linkage between the program activities and child and family outcomes.

The study asks the following questions:

1. What are the effects of Total Integration on the behavior and skills acquisition of two to six year old handicapped and nonhandicapped children?

2. What programmatic components and structures enhance Total Integration, in terms of child benefit?

3. What are the effects of Total Integration on the families of young handicapped and nonhandicapped children?

4. To what extent are the program's operational framework, curriculum, and environment directly related to child progress and skill gains?

METHODOLOGY

The CTL Preschool has enrolled 296 children, between the ages of 24 and 90 months, during the time period September, 1986 and August, 1989. The children participating in the study have been enrolled in the program for varying lengths of time. Specific data has been gathered from each child and family. The main data sources are as follows:

> 1. Child Application Form (see Appendix A). Families seeking enrollment for their child are required to complete an Application Form at the time of the initial inquiry or referral to the program. The information contained on this form reflects basic demographic data relative to the child and family, as well as provides a vehicle for the gathering of initial child information data from the family.
>
> 2. Background Information Form (see Appendix B). This form is adapted and modified from the CIP Form (Zehrbach, 1975), and seeks indepth information from the child's family relative to medical factors, family history, child services, child strengths and weaknesses, child preferences and dislikes, child behaviors, and family concerns for the child. This form is completed by the family at the time of the child's enrollment in the CTL Preschool Program.
>
> 3. Developmental Assessment. Each child enrolled in the CTL Preschool Program is provided developmental assessment at the time of program enrollment, and at the close of each semester of participation in the program. The Inventory of Early Development-BRIGANCE (Brigance, 1978),

> is the developmental assessment measure employed by the program. The developmental assessment procedures provide initial baseline data relative to skills accomplishment, with subsequent assessments providing for the monitoring of skills acquisition and documentation of child progress in the program.
>
> 4. Family Questionnaire. This five-item instrument was distributed to each family at the time their child exited the program. The instrument seeks family satisfaction with the program, as well as the family's perceptions of their child's gains while enrolled in the program. (See Appendix C.)

Data were collected for each of the two hundred ninety six (296) children enrolled in the program across the thirty six (36) month time period. These data were analyzed through descriptive statistical procedures. The statistical analysis yielded simple frequency counts, percentages, mean performance scores, and levels of child skills increase or decrease. Developmental assessment outcomes wee analyzed separately for the handicapped and nonhandicapped children. A comparison of the progress, skills development and magnitude of child gains, was conducted between the two groups.

Comparisons of child progress between developmental areas was made. An analysis of the magnitude and types of activities and experiences provided within each developmental area was computed. Child progress data were compared with program activities and experiences in an attempt to determine the effects of the program on child progress and rate of skills acquisition.

The effects of the program on families were determined through responses to the Family Questionnaire, and informal family interview and commentary. These data were analyzed in terms of frequency of response, as well as individual family statements.

> "Lynne," Susan's mother said over the phone. "I don't know what to do about Susan. She started Kindergarten today, and came home crying, and told me that she didn't want to go to school any more."
>
> Susan had been enrolled in the CTL Preschool for the past year, and was a very social and outgoing child. She was definitely ready for a successful Kindergarten experience.
>
> The mother went on to explain that Susan didn't want to go to Kindergarten any more because none of her friends were there.
>
> "But lots of her friends from Preschool are in her Kindergarten class," I said.
>
> "Yes," said the mother, "but not Jeremy, Billy, Sherry, and Ashley. Those are the friends she's talking about."
>
> The children Susan was describing were all young children with handicaps who were her friends at the Preschool. Susan was distressed because no children with handicaps were enrolled in her Kindergarten class.
>
> Susan came to the phone, and explained how her friends were not present in her Kindergarten. She said she wasn't going to go to "that school" any more, and she wanted to go to school with her friends.
>
> I tried to explain to Susan that her friends went to another school, but that she could still play with them since they lived in her neighborhood.
>
> Susan said, "But if they live in my neighborhood, why don't they go to my school? Why do they go to that other school?"
>
> I explained that sometimes adults make decisions about where children should go to school, and that sometimes those decisions don't always make sense. She said, "Sometimes those decisions make us unhappy."

"Well," said Susan, "I think it's dumb, really dumb. And, I'm gonna tell my teacher that Jeremy, Billy, Sherry and Ashley, should come to our school too."

Susan's mother returned to the phone. She and the Director talked for a few more minutes, and the mother said, "I just can't bring myself to tell Susan that her friends are handicapped, and that's why they have to go to another school. It just doesn't seem right to point out that difference to her when she clearly doesn't see it."

Susan went to Kindergarten the next day. She took some photographs of her Preschool friends for "Show and Tell." Susan told her teacher, and her new Kindergarten friends about her Preschool friends, and how they should come to Kindergarten too. Susan told her teacher that she thought adults were "dumb", and that when she was a "grown up", she'd make sure that friends would go to Kindergarten together.

Knowing Susan, she probably will.

CHAPTER TWO

THE CTL PRESCHOOL PROGRAM MODEL: TOTAL INTEGRATION AT WORK

"Eeeee-eee-eee, Eeee-eee-eee" the child vocalized down the hallway. An eerie sound in a school building hallway, but the sound was music to everyone's ears. The child attempting to sound like a fire engine was Matt, a two year old child with severe Cerebral Palsy.

He was joined in his sound production by a peer who was accompanying him down the hallway to the Gym. Matt was riding his bright red mobility trike, while his peer walked along beside. The boys were going to Gym to "ride bikes"...a favorite young child activity.

Matt's parents wanted him to gain some independence in his mobility, but had been unsuccessful in motivating Matt to ride his mobility trike around the house. When they brought the trike to preschool, it was placed in the Gym with the other bikes. Matt did not appear interested in his trike until the other children began riding on it...then it significantly appreciated in value!

But, it was not until a peer got on Matt's bike, and told Matt, "Me bike," that Matt became determined to ride his mobility trike. The motivation was provided by a peer...not an adult. Matt now had a "real" reason to ride his trike.

From that moment on, Matt rode his mobility trike from the classroom, to the gym...in the gym, and back to the classroom. A major goal was achieved by this child. And, the achievement did not come through the therapeutic efforts of professionals, but through the natural challenge and modeling of peers.

THE CURRICULUM: Operationalizing Best Educational Practice

The curricular model of the CTL Preschool Program is developmental, with horizontal and vertical curricular sequences of skills, which provide for individual child needs to be met within a singular curricular model. The curriculum was developed by the Program Director (Rocklage, 1986) and is based on age appropriate skills sequences which are directly linked with the Inventory of Early Development-BRIGANCE (Brigance, 1978), the developmental assessment measure employed by the program.

The curriculum is divided into five developmental areas, and daily program activities are planned which address skills within each of these five areas. Children access the curriculum based on their individual needs and levels of skills development in each of the five developmental areas. The Program Components, described in this chapter, facilitate and support the delivery of the curriculuar activities, and form the operational foundation for the program.

Children are grouped by chronological age for instruction. All children of similiar age are exposed to the same activities, concepts and skills, regardless of the child's reported developmental level. Adaptations are made within the instructional delivery to accomodate for individual differences, learning styles, and physical/sensory disabilities. The focus on age appropriate skills provides children with handicaps with increasingly complex tasks which Vincent, Brown, and Getz-Sheftel (1981) have indicated are appropriate in promoting quality growth and development. Presenting children with age appropriate activities promotes the development of increasingly complex skills, while continuing to facilitate intervention and remediation of skill delays.

The CTL Preschool curricular model focuses on child strengths, and presumes each child to be a competent learner. Through peer modeling, imitation, accomodation, and positive expectancies, the young children with handicaps are challenged to develop the same skills as their nonhandicapped peers. This approach is quite different from a segregated classroom setting for young children with handicaps, where there are no competent peers present to serve as learning models.

PROGRAM COMPONENTS: A Typical Day in an Atypical Setting

The organization of the daily activities within the CTL Preschool is consistent from day to day. This approach minimizes change in routine which causes many young children difficulty. Although there is flexibility built into the time schedule, each program component occurs daily, and in the same ordinal sequence. Daily program components include the following:

ARRIVAL AND FREE PLAY. Each child and family is greeted by the staff as they arrive. Children are asked to remove coats/jackets and hang them on a hook and place their backpack on a hook or in a cubby. Assistance and prompting is provided by staff, encouraging children to do as much of this task independently as is possible.

Informal conversation between the child's family and preschool staff occurs after the child has entered the classroom to play. This daily contact with families is a critical part of the preschool program. It provides the family with a daily opportunity to discuss what the child has been doing at home, and permits the program staff to remain closely attuned to the family's activities.

Free play activities occur while the children arrive at the classroom. The Free Play component is child oriented and child directed, with staff facilitating play where appropriate. The classroom environment is arranged each morning to encourage a variety of types of play, from very active, to dramatic/imaginative, to table-type play. Free play covers a thirty minute period each morning.

OPENING/CIRCLE TIME. Opening activities are conducted within a large group format. Two and three-year-old children have opening/circle time together, as do the four and five-year old children. Children and teachers are seated in a large circle on the floor, permitting full visual contact between peers.

Songs and fingerplays predominate the two and three-year-old opening activities, while the four and five-year-olds often include flannel board and child participation stories and discussions during opening/circle time activities. Language and socialization are emphasized during opening activities, using a total communication approach granting each child equal involvement. Each song and fingerplay is depicted pictorially, with gestures and motions to accompany. Major words and phrases within the songs and fingerplays are signed as well as spoken, and high-tech communication systems are programmed with text for songs and fingerplays. Children who use other types of augmentative communication devices gain access to songs and fingerplays through pictures placed on their low-tech

STRUCTURE TIME/SMALL GROUP LESSONS. Small groups of ten to twelve children gather with their teacher twice each morning. Each small group is arranged by age, and reflects the Total Integration balance of the larger group. The structured lesson times are labelled "work time" for the children, to assist the children in discriminating between work and play. The length of time spent on any structured activity is based on child attention span, with the goal of developing age appropriate attending skills addressed throughout the semester.

The physical arrangement for these activities is determined by the teacher and may occur with children seated at a table, or on the floor. Small groups may meet outside, or in another portion of the building. By varying the work time environment children are encouraged to generalize skills to a variety of settings, avoiding the perception that "work," or the demonstration of specific skills can only occur within a single environment or physical space.

The activities chosen for structured lessons are age appropriate activities which are adapted by the teacher to meet each child's unique needs. The lessons are provided within major developmental areas, and often reflect curricular themes such as science, social studies, art, creativity, dramatics, holidays, etc.

Data on individual child developmental skills acquisition is collected daily during these activities and maintained through inividual child logs kept by the teacher. Structured lesson activities may also be developed pertinent to the assessment of particular developmental skills.

communication boards or eyegaze boards.

Child choice dictates what fingerplays and songs are performed. New songs and fingerplays are introduced by preschool staff each week. Opening/Circle Time is conducted for a twenty minute period each morning.

GROSS MOTOR SKILLS/GYM TIME. Each age group has access to the gymnasium facility on a daily basis. During Gym Time, a variety of activities are engaged in through child and teacher choice. The gymnasium environment is arranged to promote access to age appropriate gross motor skills exploration and development. Teachers provide access to more structured large group gross motor activities, and children are encouraged to explore all equipment and activities.

Although the primary focus of Gym Time is gross motor skills development, a secondary emphasis is social interaction, play skills and turn taking. Gross motor play is an excellent medium through which to develop social and play skills in a naturalistic, child-oriented envionment. Spontaneous interactive play and turn taking are most often found to occur during the beginning of Gym Time.

The gymnasium is equipped with no-pedal bikes, Big Wheels, tricycles, two wheel bikes with training wheels, rocker "boats", large gym mats, large foam wedges, balance beams, physio balls, playground balls, ball bath, scooter boards, and other wheel toys. Teachers provide simple group games, such as "Duck, Duck, Goose," "Ring Around the Rosie," parachute play, Simon Says, and many more. Gross Motor/Gym Time occurs across a twenty minute time period each morning for each age group.

The uniqueness of the small group, structured lessons hinges on the adaptability of the activity to meet each child's unique needs. For example, the activity may be building with table blocks. A variety of blocks are provided by the teacher permitting children with limited motor control to participate successfully by using linked blocks such as LEGOS, or DUPLOS.

Blocks with velcro tabs on all sides are available to provide positive access for visually impaired/blind or severely motorically impaired children. The teacher may also include a cooperative block building project within this activity to promote the development of cooperative play/learning skills, creativity, and group pride in the completed structure.

TOILETING/BATHROOM. Toileting activities occur prior to snack, with children proceeding to the bathroom in small groups with their teacher. The bathrooms are large enough to accomodate ten to twelve children and contain child and adult sized toilets, urinals, potty chairs, adaptive toilet seats, and a changing area for children who have not yet accomplished toilet training.

Several child-sized sinks are available for hand washing, and a gym mat is situated on the floor of the bathroom adjacent to the door as a "waiting" area for children who have completed toileting and are ready to return to the classroom for snack. Self-help and turn-taking skills are emphasized during toileting, as well as the concepts of "clean, dirty, wet, dry", etc.

SNACK TIME. Perhaps the favorite CTL Preschool activity is Snack Time. Each child brings snack for his/her entire age group once or twice during the semester. Snack food choice is left up to the child and family, with the only choice restrictions related to specific food allergies. Parents are encouraged to permit their child to choose what snack food and drink he/she will bring to share.

Snack time occurs at the tables, with all children seated. There are three "rules" for snack time: (1) you must sit down to eat; (2) you must ask for what you want; and, (3) you must clear your place when you're finished. These "rules" are provided to permit snack time to be a time when language, socialization, and self-help skills are developed and practiced.

Snack time begins with the teacher asking the children what they need for snack, emphasizing sequence and basic concepts. For example, when the children tell the teacher that they need cup, napkin, juice and cookie/cracker, the teacher then asks, "What do you need first?"; "Where does the napkin go?" - on the table, under the cup; "Where does the cup go?" - on the napkin, etc. As the teacher prompts for individual child needs statements, the teacher also verbalizes that the cup is empty, and after pouring the juice, that the cup is full. If the snack is bite-sized, the teacher verbalizes that the child has many or few pieces, or asks the child to count how many pieces he/she has.

Children verbalize, sign, gesture, vocalize, eye gaze, or use their commuication boards to indicate their needs, and to communicate with their peers at the table. Social language is promoted and facilitated by the teacher. When a child is finished with snack, he/she clears his/her place and throws the trash in the trash can, before proceeding to play.

STRUCTURED PLAY. The program's structured play component differs from the free play component in that play activities are preselected by the teachers, and the teachers have an active role in the play. This play period is designed to foster the development of interactive play skills, turn taking, socialization and social (pragmatic) language skills.

Activities during this play period might include pla-doh, block building, painting, dramatic play, imaginative play, object construction, table games, puzzles, and a wide range of other types of activities. Each child chooses which play activity(s) he/she will engage in, and joins that group. Each play group has a teacher who structures and facilitates the play activities. Children may change activities at will, but during this play period solitary play is discouraged and parallel or interactive play is encouraged. Structured Play Time encompasses a thirty minute period each day.

MUSIC TIME. Each age group has access to a Music Program, directed by the Music Instructor at the School for the Blind. During this time the children sing, play musical instruments, move to music, dance, and do a variety of other activities which are music based. The music component assists in the exploration and development of speech/language skills, body movement skills, socialization skills and cognitive skills through the use of music. The Music Program is conducted for twenty minutes for each age group, twice weekly.

OUTDOOR PLAY. The climate of North Dakota does not permit outdoor play activities to occur on a daily basis, particularly during the winter months. When the weather does permit, the children go outdoors to two playground areas. Generally, the children's outdoor play groups are age based, with the four and five year olds, and the two and three year olds playing together. There are also opportunities provided for cross-age outdoor play when the groups are "scrambled," and the children are simply divided into two large groups.

One of the playground areas is contained in a large courtyard, containing outdoor play equipment appropriately sized for two to three year old children. The other play area is located to the rear of the school buildings and contains play equipment appropriate for four and five year old children. This play area is not enclosed by a fence and provides a large, open field for running and action-oriented outdoor play. Both playgrounds contain several pieces of adaptive outdoor play eqipment, such as wheelchair sandboxes and adaptive swings. During the summer months, water play areas are included in both outdoor play areas.

CLOSING/PREPARATION FOR HOME. Closing activities frequently include story reading or telling, and group language activities which review the day. Each child is asked to retreive his/her belongings (coat, backpack, projects, etc.), and put on outerwear, and place other belongings in his/her backpack.

Older children proceed to the hallway to assemble their belongings, bringing them into the classroom for organization and dressing. Younger children participate in the "Coat and Backpack Game," where the teacher brings the items to the classroom, and asks "Whose coat is this?" or says, "I have a red coat with blue mittens, whose are these?"

Families come to the classroom to meet their child, and teachers informally converse with each parent. This informal contact permits the teacher to briefly review the child's day, listing accomplishments and activities, and discussing any concerns that may have arisen across the morning time period.

Each of these activities occurs each morning, with the exception of Music Time and Outdoor Play. The sequence of activites is kept constant, while the length of time devoted to each activity may be modified to accomodate special activities and events. The consistency of the program format, coupled with the predictable activity sequence, minimizes many children's difficulties with activity transitions.

Since the preschool morning is only three hours long, every minute is used for teaching and learning. As described above, even toileting is a time for language and concept development, along with the more obvious self-help and independence skill training.

DEVELOPMENTAL ASSESSMENT:
A Critical Link in the Chain of Child Progress

Developmental assessment activities are conducted with each child enrolled in the CTL Preschool Program. Initial developmental skills baseline data is gathered during the initial two weeks the child is enrolled in the program. Follow up data is gathered during the last two weeks of each semester, to document child gains, progress towards goals, and program effectiveness.

The INVENTORY OF EARLY DEVELOPMENT - BRIGANCE (Brigance, 1978) is the criterion-referenced, developmental measure used for assessment purposes in the CTL Preschool Program. This measure was selected, from an array of possible instruments, for the following reasons:

1. The BRIGANCE is comprehensive in its scope in terms of developmental areas assessed and number of items at each age level.

2. The BRIGANCE is designed to be used for repeated assessments, and is not sensitive to an established time interval between assessments.

3. The BRIGANCE provides developmental assessment activities from birth through 84 months (7 years) of age, providing the developmental latitude necessary for application within an extremely diverse population.

4. The BRIGANCE is designed to reflect developmental sequences, permitting it to be directly linked to a developmentally sequenced/based curriculum.

5. The BRIGANCE allows for nonstandardized and adaptive administration of items, as well as adaptive responses to items, permitting children with handicaps full access to this measure, without penalty.

6. The BRIGANCE is easy to administer and score, and child performance can be immediately translated into intervention/education goals and objectives.

7. The BRIGANCE yields developmental age ranges reflecting skills acquisition, rather than a numerical score.

8. The BRIGANCE permits the examiner to select developmental skill areas, and subskill areas to assess, and does not require administration of the entire instrument.

The CTL Preschool Program has selected seven major developmental areas from the BRIGANCE to comprise the basic developmental assessment provided every child. Where appropriate, to meet child needs, staff may select from the remaining four developmental areas available on the BRIGANCE. All children are assessed in the following areas:

1. Gross Motor Skills and Behaviors
2. Fine Motor Skills and Behaviors
3. Speech and Language Skills
4. General Knowledge and Comprehension
5. Readiness (for children between 4-0 and 7-0)
6. Manuscript Writing (for children between 4-6 and 7-0)
7. Math

Fifty seven (57) subskill areas within the seven developmental areas are assessed, with adjustments to the subskill listing made based on the child's chronological age at the time of assessment. The subskill areas assessed are indicated in Figure 1.

If staff determine it is appropriate for the child, the following four developmental areas may be assessed:

1. Pre-Ambulatory Motor Skills and Behaviors
2. Self-Help Skills
3. Pre-Speech
4. Basic Reading Skills

ASSESSMENT TECHNIQUES

Initial child assessment, at the time of program entry, is conducted by the Lead Teacher responsible for the child, or by the Preschool Director. This assessment is conducted across a multiple day period to accomodate child attention span and adjustment to the program. The child is assessed individually on

Figure 1.

SUBSKILL AREAS ASSESSED FOR ALL CHILDREN IN THE CTL PRESCHOOL PROGRAM

GROSS MOTOR SKILLS
- Standing
- Walking*
- Stairs and Climbing*
- Running*
- Jumping
- Hopping
- Kicking*
- Balance Board
- Catching
- Rolling and Throwing
- Ball Bouncing
- Rhythm*
- Wheel Toys*

SPEECH AND LANGUAGE SKILLS
- Syntax
- Length of Sentence
- Personal Data Response
- Social Speech*
- Verbal Direction
- Picture Vocabulary
- Repeats Numbers
- Sentence Memory
- Singing*

READINESS **
- Responses to and Experience with Books*
- Visual Discrimination
- Recites Alphabet
- Upper Case Letters
- Lower Case Letters

MATH **

- Number Concepts
- Counts by Rote
- Reads Numerals
- Numeral Comprehension
- Ordinal Position

FINE MOTOR SKILLS
- General Eye/Finger/Hand Manipulative Skills
- Block Tower Building*
- Puzzles
- Pre-Handwriting
- Draw A Person*
- Designs
- Cutting with Scissors*
- Painting with Brush*
- Clay*

GENERAL KNOWLEDGE & COMPREHENSION
- Body Parts
- Colors
- Design Concepts
- Time Concepts
- Quantative Concepts
- Directional/Positional Concepts
- Sorts
- Weather
- Classifying
- Knows What to do in Different Situations
- Knows Use of Objects
- Knows Function of Community Helpers
- Knows Where to Go for Services

MANUSCRIPT WRITING **
- Prints Personal Data*
- Prints Upper Case Letters Sequentially*
- Prints Lower Case Letters Sequentially*

(* NOTE: These items may be assessed within a small group format.

** NOTE: The CTL Preschool Program combines these three developmental areas into one area, designated by the program as the "Preacademic Skills" developmental area.)

all age appropriate items.

Follow up assessment, at the close of the semester, is conducted using individual assessment techniques and classroom assessment techniques. Many gross and fine motor items lend themselves to assessment through group, structured activities during gym and work times. For example, riding a wheel toy can easily be observed in the gym during natural child activites, rather than assessing the skill in a more isolated setting. Painting with a brush is another example of a skill which lends itself to assessment within a naturally occuring set of activities.

If the teacher chooses to employ classroom assessment techniques, he/she establishes a skills checklist for a particular subskill area, and manipulates the environment in a manner which permits the spontaneous demonstration of individual skill acquisition. Specific subskill areas which may be assessed through classroom assessment techniques are asterisked (*) in Figure 1.

The child's performance for each skill is listed on the child record sheet employing the following notation:

> 1. The item is circled if the child successfully demonstrates the entire skill.
>
> 2. A slash mark is made through the item if the child successfully demonstrates parts of the skill, but has not yet fully mastered the skill.
>
> 3. No mark is made on the item if the child is not able to successfully demonstrate the item.
>
> 4. The item is marked as described in #1-#3 above, and the notation "AD" is

made if the item has been administered
or responded to in an adaptive manner.

The child's performances in each subskill area are listed in terms of age ranges of skills mastered. This information is included in the child's progress report. Emerging skills are included in the listing to provide an outline of possible goals and objectives for the following semester, as well as to inform the child's family of skills which can be worked on at home to assist in achieving skill mastery.

SOCIAL SKILLS AND BEHAVIORAL DEVELOPMENT: A Predictable Benefit of Integration

Researchers have continuously explored the benefits of integration in promoting the development of more appropriate social and behavioral skills in young children with handicaps. Many studies have demonstrated the positive effects of normal, age appropriate behavior models in promoting more positive socialization and behavioral development in young children with handicaps. Nearly all studies caution that positive social skills and behavioral development cannot, and does not happen, just because nonhandicapped peers are present. These skills develop as a result of positive interactions between handicapped and nonhandicopped children, within an environment which fosters and supports positive behavioral changes.

The environment of the CTL Preschool program provides ample support for the development and demonstration of positive, age appropriate, social and behavioral skills. The focus on the development of these skills is woven throughout the "fabric" of the curriculum, program components and operational day, and is not addressed as a separate entity. The embedding of social/behavioral skills development into the program as a whole, reflects an intentional effort for these skills to develop in the natural setting where such behavior occurs. The natural reinforcers for the development of appropriate behaviors are positive peer interactions and peer attention.

The preschool classroom provides a rich milieu of naturally occurring social interaction opportunities. There is continuous opportunity for a child to observe such interactions taking place between peers, between teachers and children, and between children and families. Children are encouraged and supported in their attempts to "try on" new, and more appropriate behaviors. The expectancy is for children to engage in age appropriate behaviors and social interactions, and staff consistently prompt and facilitate the child's progress towards meeting these expectancies.

The social/emotional/behavioral climate of the CTL Preschool is important to families as well as children. Families frequently indicate that observing in the classroom is a positive and enriching experience for them as they discover that "all two year olds tantrum," and "all four year olds are fiercely independent."

Many child behaviors which families identify as inappropriate, are indeed age appropriate behaviors. When the behaviors occur in isolation, they may appear negative and immature. However, when they occur in a group setting where many children of the same age are exhibiting the same behavior, they take on a more neutral and acceptable appearance.

For example, the mother of a four year old daughter with Down's Syndrome was deeply concerned that her child was refusing all assistance with tasks within the home setting. The mother indicated that the child would struggle to complete a task, such as dressing. If a family member offered assistance, the child would shout, "No. Go 'way. By 'self." If the family member insisted on providing help as a result of time constraints, the child would scream and run from the family member. The mother was concerned and frustraed by this behavior, and was seeking help to intervene and "change" the behavior.

But what was happening with this little girl was not an artifact of her Down's Syndrome, or any other handicapping condition. What was happening, as was explained to the mother, was that the child was manifesting an appropriate, age-level behavior. Four year old children typically strive for independence, and demand that assistance not be provided, or even offered. The mother was somewhat surprised at the response of the teacher, but began to reflect on the development of her four older children. She soon recalled that they, too, had demanded the same independence at age four. The mother quipped, "Well, I've already lived through this four times, and I guess I can live through it again!"

One of the difficulties encountered in the field of special education, at any age level, is that in a segregated classroom, professionals and families frequently "forget" what is typical, age appropriate behavior. This factor can often cause children with handicaps to be asked to develop behaviors which are not typical of their age level, or nonhandicapped peer group. At other times, a child may begin manifesting a behavior which is part of the normal sequence of behavioral development, but professionals and families may view it as negative or inappropriate and attempt to extinguish or change the behavior.

Total Integration provides daily exposure to typical behavior models, not only for the children, but for the staff and families as well. Integration assists both staff and families in "remembering" typical and developmentally appropriate behavior sequences. Integration prevents the isolation experienced in segregated settings, which facilitates staff and family understanding of appropriate behavioral development for each child.

CHAPTER THREE

THE CTL PRESCHOOL STAFF: A DIVERSE TRAINING MISSION IN TOTAL INTEGRATION

The CTL Preschool Program follows the University of North Dakota's tripartate mission of Teaching, Research and Service. The Preschool provides all students with access to each of these activities on a continual and expanding basis.

The CTL Preschool Program supports training experiences for undergraduate and graduate students, as well as area high school students, professionals and community members. Although the program's first line of responsibility is to provide training for graduate students pursuing certification and/or Master's degree in Early Childhood Special Education, the training activities which occur within the program reflect a much broader scope.

A Graduate Training Site in Early Childhood Special Education

The Center for Teaching and Learning (CTL), at the University of North Dakota (UND), was charged by the State Board of Higher Education to aassume sole responsibility for the training of professionals in Early Childhood Special Education in the state of North Dakota. This charge means that certification in Early Childhood Special Education must be accomplished through the UND training program. Certification requirements include successful completion of a Graduate Practicum course which is conducted within the CTL Preschool Program. The CTL Preschool Program is the only state approved site for the Practicum experience.

During the thirty six month period of the study, a total of sixty six (66) graduate students have completed the Practicum experience in the CTL Preschool Program. These students have come to the program from across the states of North Dakota and Minnesota, and through the Practicum course are provided direct, hands-on teaching and service delivery experiences in a totally integrated program. In addition to the student developing a full range of professional skills, another anticipated outcome of the students' experiences with integration is that the student will develop and implement some level of integration within their respective Early Childhood Special Education classrooms. This outcome has been achieved by twenty three (23) of the sixty six (66) graduate students who have participated in the Practicum experience.

A Training Site for Speech and Language Therapists

The CTL Preschool program has, since its inception, supported clinical training experiences for graduate ad undergraduate students from the Department of Communication Disorders (CDIS). The Preschool provides for interdisciplinary training experiences for these students who are training in the field of Speech/Language Pathology. Prior to September, 1986, two students from CDIS participated in the clinical practicum in the CTL Preschool during each academic year semester. Subsequent to 1986, an average of six students have been enrolled for clinical practicum in the CTL Preschool Program, during all three semesters of the program year.

The extent to which the CTL Preschool supports the interdisciplinary training program between CTL and CDIS is reflected in the Preschool's commitment to provide salary support for a faculty member from CDIS. This arrangement, begun in 1987, assures that a designated faculty member from CDIS is present on-site in the preschool during all operational hours. This arrangement provides appropriate clinical supervision for CDIS students, and provides the CTL Preschool with Speech and Language Supportive services during all hours of program operation.

The benefits of this arrangement go well beyond a training mission, entering the service dimension of the preschool program. The arrangement assures that any child enrolled in the CTL Preschool Program has immediate access to Speech/Language Therapy services. It also provides for the ongoing monitoring of all children's speech and language development, and the provision of Audiological Screening for all children each semester.

A Training Site for Undergraduate Students

Prior to September, 1986, the CTL Preschool did not provide training experiences for undergraduate students in the Departments of Special Education, Early Childhood Education, and Elementary Education. Subsequent to the restructuring and expansion of the preschool program in September, 1986, the program developed and implemented training experiences for undergraduate students. These students are enrolled in a variety of courses across departments within the Center for Teaching and Learning, and access direct experience in the CTL Preschool through Field Experiences and Observations. Undergraduate students may also choose to engage in the undergraduate Practicum course, required for certification in Special Education, in the CTL Preschool setting. During each semester, the CTL Preschool accepts approximately thirty five (35) undergraduate students to train in the program. The Preschool has provided training experiences for a total of two hundred eighty one (281) undergraduate students during the thirty six month period of the study.

A Training Site for the Community, State and Region

The CTL Preschool's Total Integration approach serves as a model program for the state and region. In its capacity as a model program, the CTL Preschool has provided training experiences for professionals, families, and community members throughout the state of North Dakota, as well as individuals from the surrounding states of Montana, Minnesota, South Dakota, and several Canadian Provinces. Professionals working within the field of Early Childhood Special Education, as well as in a variety of allied human service fields, are frequent visitors to the program. These individuals come to observe the Total Integration model in operation, and frequently request consultative services to facilitate the potential development of the model within their respective agencies and districts.

Community members are frequent visitors to the CTL Preschool Program. Many of these persons indicate they have heard of the program from friends, colleagues or family members, and they desire to "see the program for themselves." The majority of these visitors return to the program periodically to "see how things are going," and to interact with the children and staff. Several of the visitors have become volunteers in the CTL Preschool Program, indicating that they were "fascinated" by the uniqueness of the program, and desired some level of personal involvement with the program and its children.

A Training Site for High School Students

The CTL Preschool program has, since 1987, served as a community training site for high school students exploring careers with young children. The high school students choosing placement in the CTL Preschool are enrolled in high school courses which focus on Child Care and Health Care Occupations. The CTL preschool serves as a site where they can "try out" and develop new skills in an applied, young child setting.

The preschool also supports several high school students with handicaps, who work in the program through the sponsorship of their high school's prevocational and vocational training programs. During the thirty six month period of the study, a total of fifty eight (58) high school students, and two prevocational/vocational high school students have participated in training activites in the CTL Preschool.

The training mission of the CTL Preschool is expansive, and perhaps somewhat nontraditional for a university sponsored program. The training experiences provided to all individuals are varied, and reflect each person's stated needs. During the thirty six month period of this study, a total of three hundred seventy eight (378) community members and professionals, representing a wide variety of backgrounds and programs, have participated in some level of training in the CTL Preschool Program.

TRAINING EXPERIENCES FOR CTL GRADUATE STUDENTS PROVIDED BY THE CTL PRESCHOOL PROGRAM

Graduate students in Early Childhood Special Education, participating in the CTL Preschool Program, are enrolled in the Clinical Practicum course required for certification and/or degree. Enrollment in the Practicum occurs at the close of the student's training program. Students are required to have completed four specific courses prior to their enrollment in the Practicum. The required courses are:

1. Education of the Preschool Handicapped Child, 2 credits. This is the introductory course in the training sequence, and features a broad overview of the field of Early Intervention. The course specifically focuses on characteristics of young children with handicaps, program models,

service delivery options, family issues, and legal mandates and issues pertinent to the field of Early Intervention.

2. Identification and Assessment of Young Children with Handicaps, 3 credits. This course provides indepth information on the screening, assessment, evaluation, and identification aspects of Early Intervention. The course requires an applied experience in the actual comprehesive assessment and evaluation of a young child. The child's performances are interpreted across a variety of measures and techniques, and the student prepares a detailed case study report of the child's manifest skills levels, child needs and family needs. The student is also required to develop a detailed, individualized intervention plan for the child and family, based on outcomes of the assessment and evaluation.

3. Methods and Materials in Early Childhood Special Education, 3 credits. This course focuses on intervention strategies, program models, and service delivery options appropriate for young children with handicaps and their families. Intervention techniques, strategies, equipment, materials, and adaptive technology are addressed within this course, as are curriculum development and program evaluation.

4. Family Assessment and Counselling in Early Childhood Special Education, 2 credits. This course features issues related to Family Focused Intervention, assessment of family needs, family enablement and empowerment, and community based intervention models. Family involvement, education, and development of Individual Family Service Plans (IFSP) are addressed in the course. Students are assisted in the development of skills necessary to effect a strong and successful family-professional relationship to facilitate the growth and development of the child and family.

Graduate students are permitted to enroll in the required Language Development course, and various elective courses concurrent with their enrollment in the Practicum. Most students choose to enroll in elective courses which focus on Emotional Disturbance, Microcomputers and Adaptive Technology, Behavior Management, as well as administrative/supervisory courses, which will facilitate their professional role in the field of Early Intervention.

Graduate Practicum students are required to successfully complete two hundred (200) clock hours of direct teaching within the CTL Preschool Program. This requirement is met during a single, sixteen week semester. The Practicum student assumes the role of a Lead Teacher in the preschool program, and is assigned a group of ten to twelve children who are his/her responsibility across the semester. This small group of childen is comprised of equal numbers of like-aged, handicapped and nonhandicapped children. The age of the children within the small group reflects a three to six month range around a given chronological age. The practicum student serves as the Case Manager for each child in the small group, and is responsible for the assessment, program development, family conferences, and daily monitoring and instruction for each child in his/her group.

Each practicum student is responsible for planning and implementing daily activities for the small group during Structure Time/Small Group Lessons. Practicum students are responsible, on a rotating basis, for planning and implementing large group activities for a group of approximately thirty children each day. Large group activities occur during Opening/Circle Time, Gross

Motor/Gym Time, Story Time, Structured Play Time, and Outdoor Play Time. The other practicum students assist in the implementation of these activities, with a single practicum student responsible for the planning and evaluation of the activities.

The graduate practicum student is also responsible for ongoing contact with other agencies who may be serving the child. The Practicum student reviews the previous evaluation summaries, progress reports and Individual Educational Program (IEP) documents available for each child served by other agencies. This review process facilitates a comprehensive understanding of the child and services the child receives, and provides information relative to positive intervention strategies which have proved successful with the child.

The graduate practicum student is a participant in multidisciplinary staffing conferences, IEP conferences, periodic review conferences, and other multidisciplinary meetings which involve services for any child in the small group. The CTL Preschool Director is invoved in these activities as well, and provides the practicum student with evaluative feedback relative to the development and refinement of professional interaction skills, and team participation.

Each practicum student is responsible for assessment activities with each child in his/her small group. If the child is new to the program, assessment is conducted during the initial two weeks of the semester to establish a developmental skills baseline against which progress towards skills development can be effectively measured. All children are provided developmental assessment, using the BRIGANCE, during the final weeks of each semester.

Practicum students prepare detailed child progress reports at the close of each semester, which effectively communicate the child's progress to date, the child's levels of participation in the program, child preferences and dislikes, and patterns of strength and weakness. These reports are sent to the child's family, and with parent permission, are shared with the other agencies and service providers involved with the child and family.

Practicum students, in their role as Lead Teacher, assume responsibility for direct supervision of undergraduate Field Experience and Practicum students, as well as high school students involved in the program. Each practicum student generally supervises three to five undergraduate and high school students across the course of a semester. The practicum student provides written evaluation of these students' performances in the CTL Preschool setting.

The CTL Preschool Director, who is also the Graduate Practicum course instructor, evaluates the graduate practicum student's performance. Ongoing feedback is provided by the Director on a daily basis, with formal evaluation periods occuring during the fifth and tenth week of the semester. Final evaluation is conducted at the close of the semester.

The CTL Preschool Director prepares a letter of recommndation for each graduate student at the close of the semester, describing the skills and abilities which the student has demonstrated in the CTL Preschool setting. Students may choose to have this letter placed in their placement file, submitted to the administrator in their district of employment, or may retain the letter in their possession. A copy of the evaluation letter is placed in the student's permanent file in the Department of Special Education.

TRAINING EXPERIENCES FOR STUDENTS FROM THE DEPARTMENT OF COMMUNICATION DISORDERS IN THE CTL PRESCHOOL

Undergraduate and graduate students from the Department of Communication Disorders (CDIS), who are placed in the CTL Preschool Program for clinical practicum experiences, are provided direct experience in the delivery of Speech and Language Therapy services through a Milieu Therapy Model and Consultative Therapy Model. The philosophical premise of Total Integration negates the delivery of related services in a segregated manner, i.e., taking the child to a separate room to receive services in a child-clinician framework. In the CTL Preschool, the focus is on the delivery of Speech/Language Therapy services in a group setting, where both handicapped and nonhandicapped young children are participants.

CDIS students engage in Speech and Language Screening activities with all children enrolled in the CTL Preschool Program during the initial week of the semester. The Preschool Language Scale-Revised (Zimmerman, Steiner & Pond, 1979), the Assessment of Phonological Processes-Revised (Hodson, 1986), and the C:R:F: The Critical Ratio Format (Hess, 1978), are employed as screening measures. Based on the results of the screening, children are identified as in need of Speech and Language supportive services, or are identified as competent language models.

The children in need of services are grouped with equal numbers of like-aged, linguistically competent peers, and assigned to a language group. An average of eight children comprise each language group, and each group meets for a thirty minute period each day.

The Speech/Language clinicians are responsible for developing and implementing appropriate daily activities for each language group. The clinical supervisor from CDIS supervises the delivery of these services. Semester goals are written for each group, with specific goals indicated for each child who is a member of the group. Progress towards goals is evaluated by the CDIS students at the close of each semester. Written progress reports are prepared and sent to the child's family, and with appropriate release, to other agencies involved with the child and family.

Children with phonology/articulation difficulties are served by a clinician through an Individual Services model. The child with targeted difficulties is paired with a linguistically competent peer. This approach utilizes the speech of the competent peer as the imitative model for the target child, rather than relying on adult speech as the model for a very young child.

Speech/Language Clinicians provide consultative services to the Lead Teachers. The clinicians are responsible for developing activities which focus on the speech and language needs of the children in each small group. The activities are designed to be implemented by the Lead Teacher in the small group setting. Specific strategies and techniques are provided for specific target children within each small group, and child progress towards goals is evaluated by the Lead Teacher and Clinician.

The CTL Preschool training model permits Speech/Language clinicians to develop skills in the delivery of Speech and Language Therapy services within a natural and normalized environment. Children are provided with a natural setting in which to develop and practice communication skills. Within this model the generalization of skills is facilitated since the skills are developed within a natural language setting.

TRAINING EXPERIENCES FOR UNDERGRADUATE FIELD EXPERIENCE STUDENTS WITHIN THE CTL PRESCHOOL PROGRAM

Undergraduate Field Experience students choose placement in the CTL Preschool to fulfill the Field Experience requirement for a variety of courses within the Center for Teaching and Learning. Students from the Departments of Special Education, Early Childhood Education, and Elementary Education are involved in these field experiences. The CTL Preschool receives undergraduate Field Experience students from six different courses each semester. The Field Experience component of these courses is designed to provide the student with access to an applied practice setting as a participant observer, facilitating the development of applied skills.

Although each course specifies its own unique set of requirements for Field Experiences, there are several requirements in common. Those requirements, which are standard for Field Experience students, are as follows:

1. The Field Experience involves twenty four (24) clock hours of participation within the selected program.

2. Field Experience students are required to observe for the initial six hours of the experience, prior to their direct participation in the program.

3. Field Experience students are required to be active participants in the program for a minimum of eighteen hours of the experience.

4. Field Experience students must work under the direct supervision of the Lead Teacher when involved in activities with children.

5. Field Experience students are required to plan, implement and evaluate at least one lesson during their placement in the program.

6. Field Experience students are required to maintain a daily journal, recording their perceptions and experiences.

The Field Experience student is assigned to a Lead Teacher and small group of children. Field Experience students are responsible for assisting the Lead Teacher in daily activities with the children, as well as assisting with the general supervision and facilitation of daily large group activities. Evaluation of the student's performance occurs at the close of the Field Experience.

TRAINING EXPERIENCES FOR UNDERGRADUATE PRACTICUM STUDENTS IN THE CTL PRESCHOOL

Undergraduate students majoring in Special Education are required to successfully complete a Practicum experience, prior to Student Teaching. The CTL Preschool serves as a Practicum site for these students. Undergraduate practicum students, who request placement in the CTL Preschool, usually indicate that they desire direct experience in an integrated setting.

The potential practicum student meets with the CTL Preschool Director prior to the start of the semester. During this meeting the practicum student is asked to describe previous experiences with young children, experience with children with handicaps, and personal goals the student has for the practicum experience. The student is also asked to indicate any preference of age range of children with whom they would like to work. The undergraduate practicum student is assigned to a Lead Teacher, and instructued to meet with the Lead Teacher on the first day of the semester to begin to plan for the children's arrival.

The practicum student and Lead Teacher meet several times prior to the children's arrival to familiarize the student with the children in the small group, and the potential activities appropriate for these children. The practicum student is provided with an orientation to the CTL Preschool Program, which involves a review of policies and procedures, behavior management strategies, and staff responsibilities and expectancies.

During the initial two weeks of the practicum experience, the student is a participant observer in the small and large group activities. During the next four weeks, the student prepares one activity for the small group each day, and implements this activity under the direct supervision of the Lead Teacher. During the subsequent six weeks of the program, the practicum student and Lead Teacher engage in joint planning and team teaching with the small group. During the final four weeks of the program, the practicum student assumes responsibility, one time each week, for all daily small group activities. The practicum student is also asked to plan and implement one large group activity during the final four weeks of the experience.

The undergraduate practicum student assists the Lead Teacher with end of the semester developmental assessment activities, and may assist in preparing child progress reports and parent conferences. Evaluative feedback is provided by the Lead Teacher to the practicum student in an ongoing manner, with formal evaluation conducted at the midpoint of the practicum experience. Formal, written evaluation is completed by the Lead Teacher at the close of the Practicum experience. This written evaluation report is forwarded to the Practicum course instructor.

TRAINING EXPERIENCES FOR HIGH SCHOOL STUDENTS IN THE CTL PRESCHOOL

High school students enrolled in the Child Care and Health Care Occupations courses at the two community high schools, may choose the CTL Preschool as an applied community training site. Students from an area parochial high school may choose the CTL Preschool as a community placement site. These students engage in a two week "Interim" program which places students in community programs as a career awareness and community service activity.

In all cases, the CTL Preschool Director makes a presentation of the preschool program at each high school each semester. This presentation describes the program, and presents slides of the program "in action." The presentation is followed by an open discussion with students, permitting these students to ask questions, and verbalize their perceptions of the program and the integration model.

Students who choose placement in the CTL Preschool are required to participate fully in all activities within the program, and serve as "Teacher Assistants" during their training. They receive specific, hands-on training in working with young children, facilitating play, and interacting with children. They are provided supervised training in working with young children with a variety of handicaps, and learn appropriate basic intervention strategies.

The overall learning experience, however, is the importance of integration. Students report that the training experience assisted them in eliminating fears and doubts about persons with handicaps, and provided them with a much more positive perception of individuals with handicaps and disabilities. Many students indicated that as a result of the experiences in the CTL Preschool program, they were considering a career in Special Education or Early Chilhood Education. These students further indicated that they had not considered such career options prior to their involvement in the Preschool program.

SUMMARY

The Training Mission of the CTL Preschool Program is quite diverse, and continues to be expanded. The CTL Preschool Program serves as a vehicle for the development of positive awareness and perceptions of children with handicaps. The program provides positive experiences for individuals working in the program.

These experiences serve to eliminate stereotypes and prejudicial thinking which leads to persons with handicaps and disbilities being separated from the mainstream of community life.

One undergraduate field experience student wrote in her journal on her first day at the CTL Preschool:

> I was very nervous about going to the CTL Preschool. I have never worked with children with handicaps. When I got there, I was uncomfortable and afraid. I played with the children for awhile, and began to relax. The morning passed quite quickly, and it was time to leave before I realized it. I left the program feeling a little guilty, because I didn't understand why I felt so different and uncomfortable about this environment. I hope as I spend more time there, I will feel more comfortable.

Towards the midpoint of her experience, she wrote:

> Today I helped Bradley work on scissor skills. He was so happy and excited when he cut the paper in half, that he threw the scissors in the air, and hugged me! Then the teacher asked me to help Jerome cut across the paper. Boy, was I nervous because Jerome can't see, and he has poor muscle control. But, I swallowed hard, and we started. Jerome was determined to cut the paper "just like Bradley" (his friend), and so we worked, and worked for quite awhile. Jerome did not want to stop until he had cut the paper in half. He did it! Boy, was I surprised, and impressed with his determination and success.
>
> I really hope that I am helping these children, because they are really helping me.

The student's last journal entry read as follows:

> Today is my last day at the CTL Preschool, and am I ever sad. I was so afraid and nervous at the beginning, and now I'm not sure what I'll do without my daily experience with the children. This experience really opened my eyes to lots of things. I find that I'm not afraid of persons with handicaps anymore. I used to think that they couldn't do much, but now I know that children with handicaps can do everything...they just do it differently.
>
> I have to tell you what happened at church last Sunday. One of the children I worked with in the preschool goes to my church. She is in a wheelchair, and doesn't have any speech. Since I started working at the preschool, this child would smile at me each Sunday, and I would talk to her. Last Sunday, I was talking with her, and a friend of mine came up to me and said, "She's smiling at you. I didn't think she could understand anything."

"Well," I said to my friend, "She can understand everything, and she likes to talk to people."

My friend said, "But she can't talk."

And I said, "You just don't know how to listen."

CHAPTER FOUR

THE FAMILIES AND CHILDREN OF THE CTL PRESCHOOL:

Characteristics and Descriptors

On the morning of the first day of the summer session, a mother stands outside the classroom door and watches her child greet her "summer friends." Tears roll down the mother's face.

"I can't stand it," the mother says.

"Oh," says the staff member, "The first day is always hard on Mom's. It'll be 11:30 before you know it, and you and your daughter have the rest of the day together". The staff member has offered this advice several times earlier that morning to other families, and believed she was being helpful to this mother.

"No," says the mother emphatically. "It's not that I'm sad to see her go to school. I'm glad to see her be so happy to go to school. It's usually a struggle, but not here. Not at CTL. I'm just so sad that she has to wait all year to get to come where she really wants to be."

The staff member offers another Kleenex, and waits for the mother to speak. "You see", says the mother, "my daughter wants to be with other children all of the time. She wants to be with children who can talk to her, play with her, walk and run with her. She doesn't have that chance in her regular school, since all the children are handicapped. She's not happy to go to that school, and cries every morning. But today, she knew she was coming to CTL, just like last summer. Today she was up at 4 am, standing at the front door signing "go." For the full forty mile drive here, she kept signing "go", "play", and "love," and then she'd smile and do it all again. It's like her window of hope...her lifeline. I'm crying because now that she's here, I know how fast the summer will go, and, you see, she'll be too old to come next summer. It's sad for me to think that at age five, she'll not have much to look forward to."

> The staff member stands silent for a moment, then both begin to cry. The staff member puts her arm around the mother, and they stand together watching the little girl.

Across the time period of the study, information was obtained from each family, relative to their perceptions of the child, their concerns and/or questions about the child, and other descriptive information. Demographic information was also gathered. These data have been compiled for all families, and are reported within this chapter, and the chapter which follows.

Analysis of the data reveals the population involved in the study to be typical, and representative of families of handicapped and nonhandicapped young children. The population involves representation from all socioeconomic levels, educational levels, and age groups. The family descriptions of their children, as well as their stated questions and concerns, are judged to be representative of families with young children.

The level of family knowledge about integration of young children with handicaps with their nonhandicapped peers was varied. Informal conversation with families, and analysis of responses to formal questions indicated that some families had experienced "mainstreaming" in other regions of the country. Some families had experienced the integration of their handicapped child with nonhandicapped peers in community activities. However, no family or child had experienced a totally integrated program prior to attending the CTL Preschool, or even indicated that they were familiar with the concept.

One characteristic of the research population which may not be representative of all families of young children is a concern that integration might negatively effect their child. One family indicated concern that their nonhandicapped child might "pick up bad habits" from his handicapped peers. This characteristic is not reflective of what is typically reported in the research, and may be related to a lack of experience with integration, or other unknown factors.

DESCRIPTION OF THE SUBJECTS:
The Children of the CTL Preschool

Two hundred ninety six (296) young children, ranging in age from twenty four (24) to seventy two (72) months, at the time of enrollment, participated in the study. The study was begun in September, 1986, and completed in August, 1989, which represents a period of thirty six (36) months. The study involved handicapped, nonhandicapped and at-risk children. Forty eight percent (48%) of the children were identified as handicapped, with thirty eight percent (38%) identified as nonhandicapped, and fourteen percent (14%) of the children identified as at-risk. Sixty three percent (63%) of the children were male, and thirty seven percent (37%) of the children were female. (See Table 1)

At the time of enrollment in the program, eleven percent (11%) of the children ranged in age from 24 to 30 months, seventeen percent (17%) were between 31 and 36 months, and sixteen percent (16%) were between 37 and 42 months of age. Seventeen percent (17%) of the children were from 43 to 48 months of age, while fifteen percent (15%) were between 49 and 54 months of age, and fourteen percent (14%) ranged from 55 to 60 months of age at the time of program entry. Only seven percent (7%) of the

TABLE 1

Children Enrolled in the CTL Preschool Program
September, 1986 - August, 1989

DESCRIPTORS	n	Percentage of Population
Male Children	187	63%
Female Children	109	37%
Children with Handicaps	141	48%
Nonhandicapped Children	112	38%
Children At-Risk	43	14%

TABLE 2

Child Chronological Age at Time of Program Enrollment

AGE* DESCRIPTORS	n	Percentage of Population
2-0 > 2-6	32	11%
2-7 > 3-0	50	17%
3-1 > 3-6	49	16%
3-7 > 4-0	50	17%
4-1 > 4-6	44	15%
4-7 > 5-0	41	14%
5-1 > 5-6	20	7%
5-7 > 6-0	10	3%

*Note: Age is expressed in terms of years and months.

children were between 61 and 66 months of age at the time of program enrollment, and three percent (3%) were between 67 and 72 months of age when they entered the program. (See Table 2)

The mean age of the nonhandicapped children, at the time of program entry, was forty (40) months. Their handicapped peers averaged forty one (41) months at the time of program entry.

The mean length of enrollment in the program was two semesters, or the equivalent of approximately thirty two (32) weeks, distributed across a thirty eight (38) week time frame. Thirty three percent (33%) of the children were enrolled for only one semester, with twenty five percent (25%) enrolled for two semesters, and nineteen percent of the children enrolled in the program for time periods of three to seven semesters. Twenty three percent (23%) of the children participating in the study remain enrolled in the program. Table 3 displays the length of enrollment data for all children.

A significant finding of the study is that no child exited the program as a result of parent dissatisfaction with the program, or the program being judged inappropriate in meeting the child's needs. Children exited the CTL Preschool Program as a result of: (1) families moving from the area; (2) enrollment in another program whose operational hours precluded the child remaining in the CTL Program; (3) child entered kindergarten or primary special education; (4) medical factors required protracted hospitalization; and, (5) child was deceased. The greatest number of children (n=102) exited the program at the time of kindergarten entry.

Forty six (46) of the children exited the program to

TABLE 3

Length of Child Enrollment in Program

Number of Semesters Enrolled	n	Percentage of Population
1 Semester	98	33%
2 Semesters	78	25%
3 Semesters	14	5%
4 Semesters	13	4%
5 Semesters	14	5%
6 Semesters	13	4%
7 Semesters	1	1%
Still Enrolled in Program	65	23%

enroll in the community Head Start Program. The remaining children (n=83) exited the program as a result of family relocation, or enrollment in another preschool program whose hours conflicted with those of the CTL Program. Child program exit data are depicted in Tables 4a and 4b.

THE FAMILIES:
The Families of the CTL Preschool Children

At the time of enrollment, eighty one percent (81%) of the children's families were described as two parent families. Seventeen percent (17%) of the children reportedly resided in single parent families. Only one percent of the children were in foster care at the time of enrollment, while an additional one percent were in the process of being adopted.

Forty one percent (41%) of the children had one sibling, while twenty four percent (24%) had two siblings. Nineteen percent (19%) of the children had no siblings, and sixteen percent (16%) of the children had between three and five siblings. Sixty one percent (61%) of the children's siblings were older, while thirty two percent (32%) had younger siblings, and seven percent (7%) of the children were members of a set of twins or triplets. (See Table 5.)

Further sibling information indicated that fifty one (51) children enrolled in the program had siblings who were handicapped. In seventeen (17) of the sibling pairs, one child was handicapped, and one child was nonhandicapped, and both children were enrolled in the program. In twenty two (22) cases, both children in the sibling pair were handicapped and both were

TABLE 4a

Age of Child at Program Exit

Age at Program Exit	n	Percentage of Population
2-0 > 2-11	8	3%
3-0 > 3-6	26	11%
3-7 > 4-0	40	17%
4-1 > 4-6	21	9%
4-7 > 5-0	50	22%
5-1 > 5-6	34	15%
5-7 > 6-0	34	15%
6-1 > 6-6	13	6%
6-7 > 7-0	3	1%
7-1 > 7-6	2	1%
Total Children Exited	231	

TABLE 4b

Reason Child Exited the Program

Reason for Exit	n	Percentage of Population
Scheduling Conflicts for Family	38	16%
Kindergarten Enrollment	102	44%
Entered Primary Special Education	5	2%
Head Start Enrollment	46	20%
Family Relocated	36	16%
Serious Chronic Illness of Child	3	1%
Child Deceased	1	1%

TABLE 5

Siblings of Children Enrolled in the Program

Number of Siblings	n	Percentage of Population
Only Child	57	19%
One Sibling	117	40%
Two Siblings	61	21%
Three Siblings	22	7%
Four Siblings	6	2%
Five Siblings	6	2%
Twins	24	8%
Triplets	3	1%

enrolled in the program.

In six of the ten pairs of twins, both twins were handicapped. In the remaining four sets of twins, only one twin was handicapped. In the one group of triplets, all three children were identified as at-risk, and enrolled in the program. In all twin pairs, both children were enrolled in the program.

Families were asked to indicate if the child had been involved with any other community agency or service provider prior to enrollment in the CTL Preschool Program. One hundred forty six (146) children were reportedly involved with another community agency prior to enrollment.

Of the various community agencies, the greatest percentage (16%) of these children had received some services through the Child Evaluation and Treatment Program, at the UND Medical Center Rehabilitation Hospital. Fourteen percent (14%) of children had received services through the Infant Development Program, and twelve percent (12%) had received services through the Public School Early Childhood Special Education Program. Eleven percent (11%) of the children had participated in the Public School's Preschool Screening Program, and eight percent (8%) had received services through the UND Speech, Language and Hearing Clinic.

Seven percent (7%) of the children were receiving Developmental Disabilities Case Management services, while five percent (5%) of the children received Respite Care services, and five percent (5%) received services through the North Dakota School for the Blind. Four percent (4%) of the children were clients of the WIC Program, and three percent (3%) received services through Head Start. Another three percent (3%) received a variety of Public School services (i.e., Speech, OT, PT, etc.), and three percent (3%) received services through the Crippled Children's program.

Three percent (3%) of the children received Audiology services that were nonagency specific, and three percent (3%) received services through the Grand Forks County Social Services Division. Other agencies mentioned were Public Health, the YMCA, and the North Dakota School for the Deaf. Complete data is displayed in Table 6.

The data in Table 6 indicate the agencies with which families reported involvement. It is important to note that only one hundred forty six (146) of the families responded to this item, which is slightly less than one half of the total group. The extent to which the data adequately reflects the level of agency involvement of all families is questionnable.

The majority (62%) of the children and their families resided within the community of Grand Forks. Eighteen percent (18%) of families resided at the Grand Forks Air Force Base, and fourteen percent (14%) resided in the community of East Grand Forks, Minnesota. Six percent (6%) of children and families resided in the communities surrounding the Grand Forks area, with these families commuting twenty (20) to forty (40) miles each way to access the CTL Preschool Program for their child.

Parent Age, Educational Level and Employment Status at Time of Child Enrollment

At the time of the child's enrollment, forty eight percent (48%) of the mother's were between 22 and 30 years of age, with

TABLE 6

Family Involvement with Community Agencies Prior to Child's Enrollment

Community Agency	n*	Percentage of Responses
Child Evaluation & Treatment Program	54	16%
Infant Development Program	51	14%
Preschool Special Needs Program	44	12%
Public School Preschool Screening	39	11%
UND Speech/Language/Hearing Clinic	37	10%
Developmental Disabilities Case Management	25	7%
Respite Care Services	19	5%
North Dakota School for the Blind	18	5%
Grand Forks W.I.C. Program	13	4%
Head Start Program	12	4%
Grand Forks County Social Services	11	3%
Grand Forks Public Schools	12	3%
Easter Seals/Crippled Children's	12	3%
Grand Forks County Public Health	2	1%
Grand Forks YMCA Program	3	1%
North Dakota School for the Deaf	4	1%

*Note: Respondents were permitted multiple responses.

thirty six percent (36%) of the father's falling within the same age range. Twenty two percent (22%) of the mothers, and nineteen percent (19%) of the fathers were aged 31 to 35 years at the time of the child's enrollment, while eight percent (8%) of the mother's and eleven percent (11%) of the fathers were within the age range of 36 to 40 years. Three percent (3%) of the mothers, and seven percent (7%) of the fathers were 41 years of age or older at the time the child was enrolled. Less than one percent of both mothers and fathers were less than 21 years of age at the time of the child's enrollment. No age information was provided by eighteen percent (18%) of the mothers, and nine percent (9%) of the fathers. (See Table 7)

The educational level of the mothers at the time of the child's enrollment revealed that five percent (5%) had not finished high school, while twenty eight percent (28%) had completed high school or its equivalent. An additional twenty eight percent (28%) of the mothers had experienced one to three years of college or a vocational program, with thirteen percent (13%) having achieved a bachelor's degree, and six percent (6%) having completed a graduate degree. No educational information was provided by twenty percent (20%) of the mothers.

The fathers' educational level was reported as less than high school by five percent (5%), with twenty two percent (22%) having completed high school or its equivalent. Twenty two percent (22%) reported having completed one to three years of college or a vocational program, and thirteen percent (13%) reported the completion of a bachelor's degree. Seven percent (7%) reported they had completed a graduate degree.

Educational information was not reported for fourteen percent (14%) of the fathers, and for seventeen percent (17%) of the families, no father was present in the home, so no information was available. Educational level data for both parents are presented in Table 8.

Parents were asked to indicate their level of employment at the time of child enrollment. One percent of the mothers and fathers indicated that they were currently unemployed. Nine percent (9%) of the mothers and five percent (5%) of the fathers indicated they were full time students, and two percent (2%) of the mothers and sixteen percent (16%) of the fathers were currently on active duty with the military.

Fifteen percent (15%) of the mothers, and twenty six percent (26%) of the fathers listed their level of employment as semi-skilled, with twelve percent (12%) of the mothers and seven percent (7%) of the fathers indicating they were employed in a skilled position. Twelve percent (12%) of the mothers and fifteen percent (15%) of the fathers reported they held professional positions, while thirty one percent (31%) of the mothers indicated they were homemakers. Employment information was not available for eighteen percent (18%) of the mothers, and twelve percent (12%) of the fathers. Seventeen percent (17%) of the families were single parent families. (See Table 9.)

Child Handicapping Conditions and At-Risk Status at the Time of Enrollment

The CTL Preschool Program operates within the Zero Reject model, and accepts all types of handicapping conditions, across

TABLE 7

Parent Age at Time of Child Enrollment

Parent Age	(n) Mothers	%tage Mothers	(n) Fathers	%tage Fathers
<21	3	1%	2	1%
22 > 30	141	48%	106	36%
31 > 35	65	22%	57	19%
36 > 40	25	8%	34	11%
41>	8	3%	21	7%
No Response	54	18%	26	9%
Total Responses	296		246*	

*Note: Fifty families are single parent families, mother only.

TABLE 8

Educational Level of Parents at Time of Child's Enrollment

Education	(n) Mothers	%tage Mothers	(n) Father	%tage Fathers
Less than High School	16	5%	14	6%
High School/G.E.D.	83	28%	64	26%
1 - 3 years Post-Secondary Training	83	28%	67	27%
Bachelor's Degree	37	13%	38	15%
Graduate Degree	17	6%	21	9%
No Response	60	20%	42	17%
Total Responses	296		246*	

*Note: No father present in family.

TABLE 9

Employment Status of Parent's at Time of Child's Enrollment

Employment Status	(n) Mothers	%tage Mothers	(n) Fathers	%tage Fathers
Unemployed	4	1%	4	2%
Homemaker	93	31%	0	0
Student	27	9%	16	6%
Military Personnel	7	2%	48	20%
Semi-Skilled	43	15%	76	31%
Skilled Labor	34	12%	23	9%
Professional	34	12%	45	18%
No Response	54	18%	34	14%
Total Responses	296		246*	

*Note: No father present in family.

all levels of severity. At the time of enrollment, six percent (6%) of the children were diagnosed as Developmentally Disabled, with thirteen percent (13%) diagnosed as children with Down's Syndrome, and nine percent (9%) were diagnosed as having Cerebral Palsy. Six percent (6%) were children diagnosed as Visually Impaired/Blind, with six percent (6%) diagnosed as Hearing Impaired/Deaf, and eight percent (8%) were children with Neurological Impairment.

The greatest percentage of handicapped children were found within two diagnostic categories. Twenty two percent (22%) of the children were diagnosed as Emotionally Disturbed/Behavioraly Disordered, and twenty percent (20%) were children with Speech and Language Delay/Disorders. One child manifested physical handicaps of unknown etiology, and six percent (6%) of the children were diagnosed as Health Impaired (i.e., Cardiac, Gastrointestinal, Central Nervous System, Metabolic Disorders, and Kidney Failure).

Children diagnosed as At-Risk, at the time of enrollment, constituted fourteen percent (14%) of the population. Twenty one (21%) percent of these children were within the Established Risk category, with seventy nine percent (79%) characterized as experiencing Environmental Risk factors (Tjossem, 1976). Of these children, nineteen percent (19%) were victims of documented abuse and neglect, while twenty five percent (25%) were judged to be at-risk due to cultural/familial factors. (See Table 10)

Secondary handicapping conditions were present for eighty one (81) of the one hundred forty one (141) handicapped children in the program. The most frequently diagnosed secondary handicap was Speech and Language Delay/Disorder (52%), with eleven percent (11%) of the children evidencing Emotional/Behavioral Disturbance, and eleven percent (11%) manifesting some level of Neurological Impairment. Ten percent (10%) of the children carried a secondary diagnosis of Health Impairment, with six percent (6%) of the children identified with some level of hearing impairment, and five percent (5%) with visual impairment. Four percent (4%) of the children manifested some level of Cerebral Palsy, while one percent were diagnosed with an Orthopedic Handicap. Table 11 displays the data for Primary and Secondary Handicaps for the children enrolled.

The degree and nature of the children's handicapping conditions reflects a diversity which is representative of the full continuum of handicapping conditions. Speech and Language Delay/Disorder, was the primary handicap of the greatest number of children. Speech and Language Delay/Disorder was reported as a secondary handicap for the majority of the handicapped children. This finding agrees with the high incidence rate of this diagnosis among the greater population of young children with handicaps.

When the continuum of handicapping conditions present within the research population is measured against the incidence of those conditions within the general population, the research population is judged to be fairly representative. One major area of exception would appear to be in the percentage of children with visual impairment, where the incidence rate is somewhat greater in the research population than would be expected in the greater population. However, this increased incidence is judged to be reflective of the location of the program within the State School

TABLE 10

At-Risk Status of Children Enrolled in the Program

Type of Risk Status	n	Percentage of At-Risk Group
Established Risk	9	21%
Environmental Risk	34	79%

TABLE 11

Primary and Secondary Handicaps of Children Enrolled in Program

Handicapping Condition	(n) Primary	%tage Primary	(n) Secondary	%tage Secondary
Developmental Disability	8	6%	---	---
Down's Syndrome	19	13%	---	---
Physical Handicaps	1	1%	1	1%
Cerebral Palsy	13	9%	3	4%
Hearing Impaired/Deaf	8	6%	5	6%
Visually Impaired/Blind	13	9%	4	5%
Speech/Language Delay or Disorder	31	22%	42	52%
Emotional Disturbance/ Behavior Disorder	25	18%	9	11%
Autistic	3	2%	---	---
Neurological Impairment	12	8%	9	11%
Health Impaired	8	6%	8	10%
Totals	141		81	

for the Blind, which serves visually impaired children from across the state of North Dakota.

The frequency of children enrolled in the program who were identified as At-Risk for possible handicapping conditions and developmental difficulties is fourteen percent (14%). Peterson (1976) reported that a conservative estimate of the frequency of young children at-risk within the general population was ten percent (10%). The incidence rate of at-risk children within the research population is judged to be representative of the greater population.

The characteristics and descriptors of the children and families participating in the study reflect the diversity of the research population. The demographic factors reported are judged to adequately represent the greater population of families with young children, and are not judged to be unique to the geographic region of the study.

CHAPTER FIVE

THE FAMILIES AND CHILDREN OF THE CTL PRESCHOOL
MEETING THEIR CHILD'S NEEDS

> It is our hope that our child can attend an integrated program beyond preschool. We are concerned that there don't seem to be many opportunities for integration past the age of six, but we are working with the classroom teachers and school staff in setting up a schedule with a kindergarten.
>
> Who knows, perhaps our little guy will be sort of a "pioneer" in Kindergarten Integration!
>
> --the family of a five year old child with multiple handicaps--

The CTL Preschool's Family Involvement philosophy stems from a belief that families are the persons who know their child best. When families are asked to provide information about their child's experiences, preferences, and behaviors, the professionals who work with the child are better able to understand the child. This shared basis of understanding facilitates the development of a positive and productive relationship between the child, the professional and the family.

One measure of a child's prior experiences with peers is previous day care/child care experience. Forty five percent (45%) of the children were reported to have been in day care/ child care settings. Thirty one percent (31%) of this group's experiences were in home day care settings. Fifty eight percent (58%) indicated that the child had been in a center based setting prior to CTL Preschool enrollment, and ten percent (10%) did not specify in what type of setting the experience had occurred.

Of the children who had experienced prior child care/day care settings, thirty three percent (33%) of these children had been in the setting since three years of age, while twenty seven percent (27%) had been in a day care/child care setting since two years of age. Thirteen percent (13%) of the children had been in day care/child care settings since one year of age, and twenty five percent (25%) reported a child care/day care experience since infancy. Two percent of the families in this group did not specify the time interval of the day care/child care experience.

Families were asked to judge the quality of their child's interactions with peers. Sixty six percent (66%) of the families indicated that the quality of these interactions were "good," and twenty percent (20%) indicated the quality to be "poor." Fourteen percent (14%) of families made no response to this item.

Families were also asked to indicate the extent to which the child interacted positively with siblings. Sixty five percent (65%) indicated that the child's relationship with siblings was "good," while six percent (6%) indicated it was "poor," and nine percent (9%) did not respond. Nineteen percent (19%) of the total population were children without siblings.

Forty two percent (42%) of families indicated that their child interacted most frequently with children of the same age. Twenty six percent (26%) reported that their child interacted with older children, and twenty four percent (24%) indicated the interactions were with younger children. Eight percent (8%) of families indicated that their child interacted primarily with siblings, rather than with peers.

When families were asked to indicate their child's preference for play, sixty eight percent (68%) indicated that the child preferred to play with other children, while thirteen percent (13%) reported that the child preferred to play alone. Nineteen percent (19%) did not indicate a preference.

Child preferences are a critical factor in facilitating any child's adjustment to a program, and also assist the program staff in developing a better understanding of the child. Families were asked to indicate the child's "Likes" and "Dislikes," prior to enrollment in the program.

Responses to the "child likes" item were grouped into sixteen categories. The responses of families are displayed in Table 12. The responses to the "child dislikes" item were grouped into fourteen categories, and are displayed in Table 13.

In reviewing the data it would appear that the responses to these items reflect a strikingly typical pattern of young child preferences. These data support the extent to which the population of young children studied is reflective of a greater population of young children.

Family involvement and empowerment supports families and professionals engaging in shared assessment of the child's

TABLE 12

Child Preferences for Play Activities as Reported by the Family*

Activity Preference	n
Outdoor Play	180
Read/Look at Books	108
Play with Cars and Trucks	81
Play with Dolls	55
Manipulate Playdough/Clay	22
Color, Draw and Paint	91
Watch Television	27
Play with Peers	13
Gross Motor/Physical Activity	136
Music and Dance	70
Construct with Blocks and/or Legos	52
Play with Siblings	6
Sand and Water Play	37
Imaginative Play	43
Assemble Puzzles	46
There is nothing the child likes to do	1
No Response	4

*Note: Multiple responses were possible for this item.

TABLE 13

Activities which Child Actively Dislikes as Reported by the Family*

Activity	n
Cleaning up toys	41
Separation from Family	12
Going into new situations	40
Going to bed	26
Participating in structured activities	67
Sitting and attending to activity	26
Sibling interactions	2
Sharing toys and belongings	7
Getting dressed	15
Interaction with peers	7
Eating meals	26
Toileting activities	5
There is nothing the child does not like	75
I don't know what my child does not like	1
No Response	32

*Note: Multiple responses were possible for this item.

strengths and weaknesses. Families were asked to indicate their child's learning strengths and weaknesses. Areas of strength and weakness were expressed in terms of skills which the child learned easily, and those skills which the child had difficulty mastering. Learning strengths were grouped into ten categories, and are displayed in Table 14. Learning weaknesses were grouped into eleven categories, and results are displayed in Table 15.

The information provided by the family provides the program with insight into the family's perceptions of the child. Initial child programming is based on the family's input relative to the child's patterns of strength and weakness. The family's perceptions are clarified through the developmental assessment process and ongoing dialogue between families and program staff.

Approximately one third (32%) of families indicated that their child had no areas of strength. This finding underlines the importance of providing families with daily feedback relative to their child's skills and abilities. Families need to know those things which their child can do well in order to develop a more balanced perspective of their child's skills.

It might be anticipated that families of children with handicaps, or children at-risk, might respond more frequently that their child exhibited no areas of real strength, than those families of more typical children. That was not the case in this study. The majority of families who indicated that their child had "no strengths," were families of nonhandicapped children.

The Child Within the Family Unit

TABLE 14

Child Learning Strengths as Reported by the Family*

Area of Learning Strength	n
Fine Motor Skills	29
Gross Motor Skills	31
Pre Academic Skills	40
Expressive Language Skills	22
Receptive Language Skills	12
Visual/Perceptual Skills	11
Attending Skills	1
Self-Help Skills	2
Social/Behavioral Skills	11
I do not know if my child has any areas of strength	101
No Response	60

*Note: More than one response was possible for this item.

TABLE 15

Child Learning Weaknesses as Reported by the Family*

Area of Weakness	n
Fine Motor Skills	29
Gross Motor Skills	28
Pre Academic Skills	30
Expressive Language Skills	46
Receptive Language Skills	18
Visual/Perceptual Skills	5
Attending Skills	14
Self-Help Skills	10
Social/Behavioral Skills	20
Skills Related to Disability Area	21
I do not know if my child has any areas of weakness	103
No Response	35

*Note: Multiple responses were possible for this item.

The extent to which reading and television watching were experienced by the child were investigated. Families were asked to indicate whether their child was read to within the home, and who read to the child. Eighty percent (80%) of families indicated the child was read to, while only two percent indicated that no reading occurred at home. Eighteen percent (18%) did not respond to this item.

Mother's were cited by forty seven percent (47%) of families as the person who read to the child, with father's cited by thirty one percent (31%). Siblings and other family members were reported by twenty two percent (22%) of the families as the person within the home setting who read to the child.

When asked how many hours per day their child watched television, seventy six percent (76%) of families responded to the item. Of these families, twenty percent (20%) reported that their child watched television for approximately one hour each day, while twenty seven percent (27%) reported an average of two hours, and nineteen percent (19%) reported an average of three hours per day. Eight percent (8%) indicated the child watched television for approximately four hours each day, and two percent reported that the child averged more than four hours of television viewing each day. Only one family indicated that their child watched no television.

The child's behavior within the home setting was investigated in terms of child behaviors which "bothered" the family. Ninety one percent (91%) of all families responded to the item. The responses were grouped into forty nine (49) categories, which are displayed in Table 16.

TABLE 16

Child Behaviors which the Family Reports as Bothersome*

Behavior Reported	n
My child has no behaviors which bother me	18
Child is "Bossy"	7
Child is physically destructive	5
Child has a high activity level	12
Child ignores mother	9
Child engages in self-stimulation behaviors	4
Child plays too rough	4
Child "whines"	48
Child is very impulsive	1
Child fights with siblings constantly	5
Child becomes "upset" when told "no"	11
Child is stubborn	13
Child screams	4
Child plays with food	7
Child talks constantly	8
Child is very demanding	12
Child is overly dependent on mother	7
Child is constantly "into things"	4
Child uses "babytalk"	5
Child engages in head-banging behavior	1
Child tantrums	15
Child does not talk	9
Child will not listen to adults	16
Child continues to suck on pacifier	1
Child consistently tips furniture over	1

Child sucks thumb	9
Child throws objects and toys	3
Child consistently says "no" to requests	3
Child climbs on furniture	1
Child is "too loud"	4
Child constantly wants to be with adults	2
Child mumbles when talking	2
Child constantly "teases" siblings	2
Child will not sleep for long periods of time	4
Child is too dependent on father	1
Child has short attention span	4
Child is "manipulative" of adults	3
Child "never listens"	3
Child bites	6
Child hits	9
Child cries	10
Child "lies"	4
Child constantly says "I can't"	7
Child grinds teeth	1
Child "talks back"	13
Child continues to wet pants	2
Child makes strange noises	1
Child kicks	1
Everything my child does bothers me	1
No Response	31

*Note: Multiple responses were possible for this item.

It is interesting to note that the types of behaviors reported by the families are representative of behaviors which families typically indicate are "bothersome" young child behaviors. The only responses which may be more directly attributable to young children with handicaps pertain to self-stimulation behaviors, and head banging.

Families were asked to list any special concerns they had for their child. Forty five percent (45%) of families listed one or more specific concerns. These responses were aggregated into seventeen groups, and are displayed in Table 17.

The types of concerns reported by families are judged to be fairly typical child concerns. The families who listed concerns were equally divided between families of handicapped and nonhandicapped children.

Family Involvement in the CTL Preschool Program

Families are an integral component of the CTL Preschool Program. There is a clear recognition of the importance of the family unit in the life of a young child. The program makes a strong commitment to family involvement, within the broadest possible context.

In order to facilitate and support the child's development, the child's family must be fully informed of the child's activities, skills and abilities. From this information base, the family is empowered to direct the preschool staff in addressing the child's needs. CTL Preschool Program operates from the basic premise that the family has agreed to share their

TABLE 17

Family Concerns for their Child at Time of Enrollment*

Specific Concern	n
Acceleration of Speech/Language Skills Development	53
Child has significant need for socialization experiences	85
Child is "slow to learn" certain skills	18
Child's emotional well-being is at risk	27
Concerned that child is not physically healthy	12
Can my child hear "alright"?	22
Child is "impossible" to toilet train	24
Child engages in physically agressive behavior	57
Child will not "sit and learn"	65
Child is very active	72
Child seems to have difficulty "listening and understanding"	84
Child may have emotional "problems"	63
Child seems to have "behavior problems"	91
Child "may be" handicapped	17
Child does not separate well from the family	37
Is my child ready for Kindergarten?	43

*Note: Multiple responses were possible for this item.

child's growth and development with professionals who are enriched through knowing and working with the child and family.

Families are provided total access to the CTL Preschool Program. Families recognize that they may be involved in the program to the extent that they choose. The preschool program operates with an "open door" policy, which facilitates the family's opportunities to join in the program at any time. Families know that they can freely enter and participate in classroom activities throughout the program day, and that they have total access to preschool staff for conversation, interaction and consultation. Siblings are welcome, and encouraged to visit and participate in the program whenever possible, facilitating total family involvement in the program.

At the time of the child's enrollment, families are asked to indicate the types of program involvement which they judge to best meet their needs and family lifestyle. The family's responses to this question are recorded on the child's enrollment form, and preschool staff facilitate each family's choice of program involvement activities. This strategy is employed to permit the family to be involved in program activities of their choosing, rather than the preschool staff determining what family involvement activities will occur.

The concept of family involvement and empowerment supports the premise that family's will initially choose activities and levels of involvement which match the family's lifestyle and needs. By providing a range of possible involvement activities, as well as nonspecific opportunities for program involvement, the lifestyle and needs of each family can be addressed.

Table 18 displays family choices of program involvement activities. Eighty seven percent (87%) of families indicated that they wanted to be involved in the CTL Preschool program, while twelve percent (12%) of families made no response to the question, and only one percent (1%) of families indicated that they wanted no involvement.

The three families who indicated that they wanted no direct involvement were families who were in significant crisis at the time of the child's enrollment. These families acknowledged that what they needed from the program was respite placement for the child, providing the family with several hours of freedom to focus on crisis resolution within the family structure. These three families did become involved in program activities at a later point in time when the family unit was in a greater state of equilibrium.

The nine involvement activities listed on the enrollment form are designed to provide families with a full range of involvement options. The range of options provides opportunities for direct child contact within the classroom, as well as activities which are related to the program but do not require direct child contact. The tenth item included in the activities list is "Other," permitting families to suggest specific involvement activities. Families were able to indicate as many choices of involvement activities as they desired.

Of the two hundred fifty eight (258) families responding to the involvement activities item, seventy two percent (72%) of these families indicated that they would enjoy preparing snack foods for the children. Sixty one percent (61%) reported that

TABLE 18

Family Involvement Activities Indicated as Desirable by Child's Family*

Activity	n
Observing children in the classroom	157
Teaching a specific skill to a small group of children	68
Constructing materials and equipment for the classroom	64
Playing with the children	128
Transporting children to and from the program	76
Organizing a parent group activity	60
Leading a small group activity with the children	55
Preparing snacks for the children	187
Speaking to a group of parents	53
Other:	
Assisting with classroom parties	2
Engaging in music activities with the children	2

*Note: Multiple responses were possible for this item.

they wanted to observe the children during daily program activities, and fifty percent (50%) indicated a desire to engage in play activities with the children.

Providing transportation for children enrolled in the program was selected by twenty nine percent (29%) of families, with twenty six percent (26%) of families indicating that they would like to teach a specific skill to a small group of children. Twenty five percent (25%) of families reported that they would like to construct instructional and playtime materials for the program, while twenty three percent (23%) indicated a desire to assist with the organization of parent group meetings, and twenty one percent (21%) stated their desire to lead a small group activity of their choosing. Twenty percent (20%) of families reported that they would like to be a speaker at a parent group meeting.

Less than one percent of these families indicated activities in the "other" column. Two families indicated that they would like to facilitate music activities for the children, and two families offerred to assist with the organization of holiday parties.

An analysis of the frequency of responses to activities which required total involvement with the children, compared to activities involving less direct, minimal, or no contact, was conducted. Thirty nine percent (39%) of family choices involved direct contact with the children, with an additional forty percent (40%) of responses falling within the less direct/minimal contact category. Twenty one percent (21%) of responses involved activity choices which involved no child contact, but did involve adult contact. Activities assigned to each of the three categories are displayed in Figure 2.

During the three year time period, families have participated in the activities of their choice on a consistent basis. The program does provide for at least one group parent meeting each semester around a topical area or family oriented activity. The program has sponsored family picnics during summer semester, toy fairs, technology and computer awareness events, holiday potluck parties, and individual speakers and panel discussions around particular topics of interest. The group meetings are family oriented, with all family members invited to participate. The children's work is displayed in the classrooms and hallways, and preschool staff are available to provide childcare during the meetings.

Each family program begins with the children participating in songs and fingerplays learned in the preschool program. Parents report that they enjoy this aspect of each program since it provides them with an opportunity to hear the songs and fingerplays so they can join their child in these activites at home. Song lyrics and fingerplays are provided for each parent in booklet form for their reference at home. The children enjoy participating in this portion of the program, and demonstate pride in their performances.

Other Input from the Family Relative to the Child

At the time of the child's enrollment, families are asked to indicate if there is information about their child which they

Figure 2.

Categories of Family Involvement Activities

Category	Number of Responses	Percentage of Responses
Direct Involvement:		
Teaching specific skill		
Playing with children		
Transporting children		
Leading small group activity		
Total Responses	331	39%
Indirect Involvement:		
Observing children		
Preparing snack		
Total Responses	344	40%
No Direct Child Involvement:		
Constructing materials		
Organizing a parent group meeting		
Speaking to parent group		
Total Responses	177	21%

wish to communicate, which is not addressed on the application or background information form (see Table 19). While fifty eight percent (58%) made no response to this item, the remaining forty two percent (42%) of families utilized this item to indicate unique child characteristics and family concerns which had not been previously expressed.

The types of information which families reported in this item included descriptions of the child's emotional state (n=27), unique characteristics of the child or the child's behavior (n=23), and requests from families of children with handicaps to "treat the child as if he/she were normal" (n=15). Thirteen (13) families used this item to indicate that their child was "basically a happy child," while an additional thirteen (13) families reported that there were stresses and difficulties between parents within the family unit which may effect the child. Nine (9) families indicated that they had requested copies of child reports from other agencies be sent to the preschool program, while seven (7) families listed questions they had about their child's development, and an addiional six (6) families listed medical concerns about the child. Three families indicated that their child experienced difficulties making transitions between actvities, and two families indicated that their child was "highly independent."

The family's initial contact with the CTL Preschool program is usually by phone. During this conversation, the program is explained, along with the application and enrollment procedures. The family is provided an opportunity to ask questions during the conversation.

TABLE 19

Additional Child Information Provided by Family at Time of Enrollment

Information	n
Will forward evaluation reports from other agencies	9
Child may demonstrate some emotional difficulties	27
Transitions between activities are difficult for the child	3
My child is basically a "happy child"	13
Please treat our child as "normally" as possible	15
Parent problems within the family	13
Characteristics unique to the child	23
Parents have concerns regarding child's development	7
Child is highly independent	2
Child experiences medical difficulties	6
No Response	168

If the family is interested in the program, they are invited to visit, and encouraged to bring the child along, to experience the child's reaction to the program. During the program visit, the family is encouraged to ask questions about the program.

Many times, questions do not arise until after the family has had time to reflect on their visitation to the program. Therefore, space is provided on the child application form as a prompt to families to ask any additional questions they may have. These questions are responded to via phone contact by the Preschool Director.

Of the two hundred ninety six (296) families participating in the study, two hundred eighteen (218) families indicated that they had no additional questions at the time of enrollment. The remaining seventy eight (78) families asked a variety of questions.

The most frequently asked question involved requests for the semester schedule, and daily classroom schedule, which is routinely sent with the letter of child acceptance into the program. Other families asked for more specific information about the curriculum, program visitation policies, and program cost. Several families requested confirmation of the teacher/child ratio, information on Speech and Language services, and the types of behavior management techniques used within the program. A complete listing of family questions is included in Table 20.

Families were asked to indicate why they chose the CTL Preschool Program for their child. Eighty eight (88) families chose not to respond to this item, while the remaining two hundred

TABLE 20

Questions Asked by Families at the Time of Enrollment

Question Category	n
Are Speech Services available?	3
What is the teacher/child ratio?	5
Can parents visit the program while the child is in attendance?	10
What type of curriculum does the program use?	11
What is the tuition cost?	8
What is the operational schedule of the program for the coming semester?	22
What types of behavior management strategies does the program use?	3
What is the history of the program?	2
Are parent's informed in writing of the child's progress?	3
How soon will my child be enrolled in the program?	2
How many staff are there for the program?	1
Can you provide suggestions for activities to do at home?	1
Is developmental assessment available in the program?	3
Is the program able to accept infants?	2
Can siblings be together in the same classroom?	1
"I hope my child will not acquire any bad habits".	1
No Questions	218

eight (208) families provided a variety of responses. Multiple responses were permitted for this item, resulting in a total of four hundred ninety three (493) responses, which are detailed in Table 21.

The most frequent reason given for choosing the CTL Preschool Program was the program's integration model. Several families indicated that they had previous experience with mainstreamed programs in other regions of the country, and were pleased with the diversity and dynamics such programs provided.

Socialization opportunities were frequently cited as a reason for choosing the CTL Preschool, with many families indicating that they liked the idea of free play and structured play periods which they judged would facilitate socialization and social interaction skills development for their child. The structure of the program was cited frequently as a choice factor, with families stating that they desired a program where the structure was clearly defined, and the behavioral limits were consistently and positively stated.

Other choice factors included the program's established reputation for quality services, characterized by families as "an excellent program," along with the curriculum utilized by the program, and the level of training of the program's staff. Many families indicated that they made their choice based on the recommendation of community agency personnel involved with the family, or the recommendation of family friends. It is interesting to note that although the CTL Preschool's tuition charge for a single semester is very low ($30), only four families cited the program's cost as a choice factor.

TABLE 21

Reasons Cited for Choosing to Enroll Child in CTL Preschool Program*

Reason Cited	n
Cost of Program	4
Program's curriculum	35
Program fosters child's independence	1
Speech services are available	1
To help my child be ready for kindergarten	4
Trained staff in the program	29
Program is integrated	66
Level of structure present in the program	42
Our other is in the program	18
The program is innovative and creative	6
Program has an "excellent" reputation	41
Program provides for large group experience	20
Program conducts developmental assessment of children	18
Parent involvement activities of the program	5
Location of the program	7
Favorable teacher/child ratio	8
Child socialization aspects of the program	58
Program provides significant language stimulation	25
Program individualizes for all children	22
Peer learning opportunities provided by program	23
Program was suggested to me by a community agency	36
Program was suggested to me by a friend	24

*Note: Multiple responses were possible for this item.

I think that it's terrific that my son has this opportunity to grow up with handicapped and nonhandicapped children. I wish that I'd had this opportunity, because at 33 years, I still haven't learned "how to act" around handicapped people of any age. I hope that my son will grow up learning to communicate with any person, with respect and acceptance.

--the mother of a three
year old nonhandicapped
child--

CHAPTER SIX

RESULTS OF THE STUDY: PROGRAM EFFECTS AND CHILD GAINS IN THE GROSS MOTOR AND FINE MOTOR SKILL AREAS

Her father brought her to the preschool...a beautiful, four year old child. She sat in an adaptive stroller and chewed on the front of her shirt. She engaged in some hand and finger posturing that reflected self-stimulation behaviors. She reportedly had no language, did not walk or stand, and had never been exposed to a group of nonhandicapped peers. Her IEP from her school program indicated that she had learned to tall kneel and crawl, but she required a chair with a tall back, sides and arms in order to be seated at the table with peers. The IEP further indicated that the child appeared to prefer isolation to interaction, and was not able to engage in activities with peers or adults.

As her father was preparing to leave, the strength of the bond between father and daughter was apparent to all. She responded to his verbal goodbyes, and visually watched him depart. She began to cry. Her teacher removed her from the stroller and held her until her crying ceased, and then sat her on the floor, close to a group of peers who were building with Legos. She remained where she had been placed, engaging in some hand/finger posturing and self-stimulation type behaviors...or she "pretended" to.

What was obvious was that she was intently watching her peers, and was keenly interested in what they were doing. While still "pretending" to self-stim, she began visually inspecting the other areas of the classroom, and then began to rapidly crawl towards a doorway connecting another classroom with the main room.

Through the door she went, and "checked out" what was happening in the other room. She quickly retreated, and rejoined the group of peers playing with Legos. She remained a "safe" distance from the group, so as not to appear that she was participating. She did not return to the self-stim type behavior, but simply sat and watched. She watched all activities across that first morning, and several subsequent preschool mornings. During that first week, she did not engage in any play or interaction, nor did she participate in any of the structured small group activities. She simply watched.

By the beginning of the second week of the summer program, she would vocalize to be removed from her stroller, and she refused to be returned to the stroller until it was time to be transported to the green space for outdoor play at the end of the morning session. She crawled to and sat in a nonadapted, child sized chair at the table, and began reaching for materials. It was her cue that she wished to participate.

By the beginning of the third week, she selected her own peer group each morning for free play, and always chose nonhandicapped children who were of her same chronological age, although no age statements or distinctions were made by an adult. She began to participate in play through vocalizations, giggles, and laughter. She followed her peers by crawling behind them as they walked, and would join them in a full range of play and structured activities.

As we watched this child within the integrated program, it became obvious that she was intently "studying" what four year old children did, and was attempting to imitate their activities. She made every effort to "normalize" herself, and within the classroom setting, become a "typical" four year old child. As the summer progressed, she "studied standing", and began pulling herself up to a table, leaning against the table for support, and playing at the table with blocks and toys.

As we watched, it was clear that she could not stand for long periods since her ankles rotated her feet "backwards", and she was attempting to stand on the tops of her feet. She was frustrated since her peers stood for long periods of time, which is what she wanted to do.

Our remedy was to sit on the floor behind her when she stood, and rotate her feet "forward," so she was standing on the soles of her feet. She clapped and vocalized her pleasure when this adjustment was made, and she stood for longer periods of time with her feet and ankles supported by an adult.

She "blossomed" all summer, and clearly gave every indication that she had "found" what she wanted...peers whom she could "study" and imitate. In six weeks time, integration and access to nonhandicapped peers allowed this child to "rewrite" her developmental prognosis. She had effectively proved a large number of professionals to be incorrect in their assessment of her skills and abilities. She dramatically taught us how critical integration and normalization are, and demonstrated daily the power of peer imitation and learning.

YOUNG CHILDREN LEARNING TOGETHER:
Program Outcomes for the Children

The vignette at the beginning of this chapter describes one young child's experiences in the CTL Preschool Program. Her story is only one of many stories that could be told about young children with handicaps benefitting in immeasurable ways from the experiences shared with nonhandicapped peers.

The extent to which young children with handicaps are motivated and challenged to develop new skills, and at times to develop skills which negate their previous prognosis for progress, is impossible to measure in a quantitative manner. The measurement of these intrinsic variables is left to inference and speculation, based on detailed observations coupled with results of quantative measurement of skill gains. Each of the young children with handicaps, involved in this study, manifest a multitude of skill gains which are not measurable or quantifiable.

It is these types of child progress, skills development, and behavioral changes which are nearly impossible to quantify or describe, except on an individual child basis. And yet, these types of changes occurred for all the young children with handicaps who were enrolled in the program during the thirty six months of the study.

Where appropriate, attempts have been made to provide a descriptive summary of these types of child gain factors which may not be reflected in the quantative data available for these children. However, it must be noted that no descriptive summary is able to effectively communicate these types of factors, and much of the impact is lost in group summary descriptions.

CHILD PROGRESS DATA

As detailed in Chapter Two, Developmental Assessment is conducted with each child at the time they enter the program, and on three to four month intervals as they continue in their enrollment. Analysis of the child enrollment data revealed that the mean length of time a child was enrolled in the program was two consecutive semesters, and the typical pattern of children demonstrating a two semester enrollment was that the child was enrolled for the fall and spring semesters of the academic year.

In an effort to control for the length of time of enrollment, children who began their enrollment during the Fall 1986, 1987, or 1988 semesters, and whose enollment continued through the close of the Spring 1987, 1988, or 1989 semesters, were included in the developmental asssessment data pool. It was further determined that for children enrolled for more than two consecutive semesters, the developmental assessment at the time of the child's enrollment, and the follow up assessment at the end of the spring semester, would be used for comparison purposes in the study.

The population was stratified based on these descriptors, resulting in the placement of one hundred sixty one (161) children in the developmental assessment data pool for analysis of developmental skills outcomes. Of these one hundred sixty one (161) children, seventy (70) were young children with handicaps, and ninety one (91) were nonhandicapped peers. The age range of subjects in each subgroup was not significantly different, with representation of all age groups at equal levels within both subgroups.

Results of developmental assessment at the time of enrollment, and the subsequent assessment at the close of the two semester period, were gathered within each of the major developmental areas assessed. A time interval equivalent to nine months (38 weeks) elapsed between initial and follow-up assessment. The children were in program for two, sixteen week semesters, with a six week vacation period between semesters, accounting for a total of thirty eight weeks. A detailed discussion of the developmental assessment process, to include major developmental areas assessed, and subareas within each area, is included in Chapter Two.

The data were recorded in terms of the child's range of skills acquisition within each major developmental area. The child's lowest subskill area comprised the lower end of the range, with the child's highest subskill area forming the upper end of the range. The magnitude of the skills range was computed for each child, to permit investigation of program effects in narrowing or broadening the skills range.

Skills level changes were computed for each child, comparing the difference between the lowest subskill area performance at the time of the initial assessment, with the lowest performance at the time of the follow-up assessment. The same process was engaged in relative to the upper end of the skill ranges. These data permitted further analysis of total skill gains in each developmental area.

Data for each subgroup, handicapped and nonhandicapped, were gathered separately to permit comparisons of program effects for each subgroup. Mean scores were computed within each major developmental area for each subgroup, across all score calculations. As a result of the diversity of measured child performances, median and mode statistics were also computed for the pretest and posttest skill ranges, as well as for the magnitude of those ranges. The median and mode statistics are presented to describe the diversity of both subgroups. The mean statistics are used throughout the study for between and within group comparisons.

CTL PRESCHOOL PROGRAM EFFECTS

One of the major criticisms of previous research on the effects of integration, on young children with and without handicaps, has been that the "treatment" which these children received is seldom described in a quantative manner. This factor has been described as causing difficulties in determining the activities the children had been exposed to which may, or may not, account for the reported changes in the child. The current study has maintained an ongoing log of activities conducted within the preschool setting, in an effort to quantify activities which the children experienced during the time period of the study.

As described in Chapter Three, each Lead Teacher (graduate practicum student), and Assistant Teacher (undergraduate field experience/practicum student) is required to maintain a daily log of activities within the preschool setting. These logs are collected at the close of each semster, and maintained by the CTL Preschool Director as a permanent record of child activities. Lead Teachers are required to log each daily activity in terms of primary developmental area addressed by the activity, as well as skills from other developmental areas which are addressed through the child's participation in the activity. These logs are reviewed by the Preschool Director on an intermittent basis to assure that all developmental areas are addressed daily, and to assure a balance of activities across all developmental areas.

Data from these logs were collected and recorded, yielding a frequency count of child activities within each developmental area. These data are used to support the magnitude of child progess within each major developmental area.

The frequency of occurrence of Program Component activities, such as Free Play, Snack Time, Outdoor Play, etc., are logged on a daily basis. These data yielded a frequency of occurrence of each Program Component across the time period studied. The frequency of child experiences within the Program Component areas is considered to be an important factor in child skill development. Activities within the Program Components support the development, refinement, and mastery of developmental skills which have been formally introduced through structured lesson activities.

Summative data for specific developmental area activities, and program component activities are presented in Tables 22 and 23. Activities within each developmental area will be separately addressed in the subsequent sections of this chapter which report child progress data for each major developmental domain.

TABLE 22

Frequency of Structured Activities Provided Children by Developmental Area

Developmental Area	Number of Activities Across 36 Months	Percentage of Total Program
Gross Motor	483	8%
Fine Motor	1,748	31%
Speech and Language	1,453	26%
General Knowledge and Comprehension	1,230	22%
Pre-Academic	740	13%
Total Activities for 36 Months	5,654	

TABLE 23

Frequency of Activities within Program Components

Program Component	Number of Activities across 36 Months	Percentage of Total Activities
Opening/Circle Time	339	22%
Free Play	339	22%
Structured Free Play	339	22%
Outdoor Play	204	14%
Gross Motor/Gym Time	190	14%
Music	90	6%
Total Program Component Activities	1,501	

Table 22 demonstrates that in terms of structured activities, presented to the children during small group lesson times, the greatest number of activities occurred in the Fine Motor skills area. This area accounted for thirty one percent (31%) of the total activities across the time period of the study. Speech and Language activities accounted for twenty six percent (26%) of the total activities, while General Knowledge and Comprehension skills activities accounted for an additional twenty two percent (22%) of activities. The detail included in the Lead Teacher logs indicated that these three developmental areas comprised an aggregated whole, and the extent to which it was possible to separate developmental areas within these activities was, at best, arbitrary.

Preacademic skills were addressed in thirteen percent (13%) of the activities. The reported frequency of these activities may be misleading since preacademic activities are engaged in with children who are four years of age, and older. The other developmental area activities are engaged in with all children, across all age levels, and the extent to which this skill area is "out of balance" with the other developmental areas, may be an artifact of the age discrimination factor.

Gross motor skills, as addressed during small group structured lessons, accounted for only eight percent (8%) of the total program activities. However, gross motor skills development was addressed at two additional times each day, during the Gym Time and Outdoor Play components. As is depicted in Table 23, Gym Time and Outdoor Play accounted for a total of twenty eight percent (28%) of Program Component activities. These data reflect a greater child exposure to gross motor skills development than is evident in the data from the small group structured activities.

The information depicted in Table 23 indicates that activities in the Opening/Circle Time, Free Play and Structured Free Play Program Components, have occurred on a daily basis throughout the time period of the study. These three program components account for a total of sixty six percent (66%) of Program Component activities.

The Outdoor Play Component occurs only when the weather permits. The Gym Time component occurs on a daily basis, but did not become a part of the program until January, 1988, when the program moved to the North Dakota School for the Blind. Prior to that time, the program did not have the physical facilities to include this Program Component.

The Music Time component was introduced in January, 1988, and is provided only during the academic year when the Music Education Instructor, at the School for the Blind, is on staff.

As previously stated, Speech and Language Support Service activities are an important contributing factor in child progress and skill gains. Table 24 details the frequency of occurrence of Speech and Language Support activities. The data displayed in Table 24 indicate that nearly one half (49%) of the activities conducted within the Speech and Language Supportive Services Component involve individual speech and language intervention and stimulation activities. As mentioned in Chapter Three, these services are delivered within the natural environment of the child's preschool setting, and do not involve the child going to an office or another building to receive services. To the maximum

TABLE 24

Speech and Language Supportive Services Activities

Type of Activity	Number of Activities across 36 months	Percentage of Total Activities
Speech and Language Screening	438	13%
Audiological and Tympanometric Screenings	641	18%
Small Group Language Stimulation Activities	678	20%
Individual Speech and Language Therapy Sessions	1,695	49%
Total Speech and Language Support Activities	3,452	

extent possible, the child receiving the service is paired with a speech and language competent peer to serve as a model for age appropriate skill development. Child progress and gains in the Speech and Language developmental area must take into account the individual stimulation and intervention services which the children have received.

Twenty percent (20%) of the Speech and Language support activities involve small group language stimulation experiences. These small groups are heterogenous, including competent peers as language models. Again, it is important to consider the extent to which child gains in the Speech and Language area, as well as the General Knowledge and Comprehension area, may be, in part, attributable to experiences in language group.

Audiological Screening, to include Tympanometry, accounts for eighteen percent (18%) of the Speech and Language support activities. Each child receives Audiological Screening each semester to monitor auditory acuity and middle ear functional status.

Speech and Language Screening accounts for the remaining thirteen percent (13%) of support activites. At the time of initial enrollment, each child's Speech and Language skills are screened to assist in determining the age appropriateness of each child's skills. Children may be rescreened at any time during their enrollment in the program, if difficulties in Speech and Language skills are noted.

The extent to which Audiological and Speech/Language Screening activities may account for child progress and gains is unknown. It is important to note that with such services present in the program on a daily basis, children with suspected difficulties may be identified more quickly and interference with learning and development minimized. The CTL Preschool is able to provide a child with Speech and Language intervention and support as soon as a problem is identified, and parent permission obtained. This factor is quite different from other programs where the child may need to be referred for screening or evaluation, and a thirty to sixty day time period may elapse prior to the child's receiving the necessary services.

CHILD PERFORMANCES IN THE GROSS MOTOR SKILL AREA

Each of the one hundred sixty one (161) children in the developmental assessment pool participated in developmental assessment activities in the area of Gross Motor skills development. The time interval between initial and follow-up assessment was the equivalent of nine months (38 weeks). Administration of, and child response to items were adapted, where appropriate, to meet the child's unique needs. The majority of items were individually administered, with some items administered in a small group setting, permitting the activity to occur within the most natural setting to facilitate maximum child performance.

Tables 25 and 26 present data for the ninety one (91) nonhandicapped children in the assessment pool. Table 25 depicts performances at the time of initial assessment, while Table 26 indicates performances at the time of follow-up assessment.

The data depicted in Table 25 reveal the diversity of the children's performances, in terms of the differences noted between

TABLE 25

Gross Motor Skills Levels of Nonhandicapped Children at Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	91	40	32.65	52.11	19.46
Median	91	40	30.00	54.00	18.00
Mode	91	40	36.00	60.00	18.00

TABLE 26

Gross Motor Skills Levels of Nonhandicapped Children at Follow Up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	91	49	37.91	63.21	25.30
Median	91	49	36.00	66.00	24.00
Mode	91	49	36.00	66.00	24.00

the three measures of central tendency. The mean chronological age at the time of program entry assessment was forty (40) months. The mean performance of the lowest skill in the range occurred some eight months below the mean chronological age, and the highest skill occurred approximately twelve (12) months above the mean age level. The mean skill range was approximately nineteen and one half months (19.46), reflecting a wide performance range of Gross Motor skills development.

The data presented in Table 26 details the developmental progress of the nonhandicapped children in the area of Gross Motor skills development at the time of follow-up assessment. The measures of central tendency employed are more closely aligned in terms of the lowest skill in the range and the magnitude of the range. There is an approximate three month discrepancy between the mean score for the highest skill, and the median and mode score generated. Overall, the diversity of follow up assessment scores is less than at the time of initial assessment. The magnitude of the skills range for follow up assessment is greater than at the time of initial assessment.

Table 27 presents the data for handicapped children at the time of program enrollment and initial assessment. All three measures of central tendency report similar scores, and the performaces of this group at initial assessment are more homogeneous than are their nonhandicapped peers.

The lowest skill levels are approximately seventeen (17) months below the mean chronological age, while the highest skills are slightly above the mean chronological age. The magnitude of the skills range is approximately seventeen (17) months, which is

TABLE 27

Gross Motor Skills Levels of Handicapped Children at Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	70	41	24.33	41.36	17.03
Median	70	41	24.00	42.00	16.00
Mode	70	41	24.00	42.00	16.00

TABLE 28

Gross Motor Skills Levels of Handicapped Children at Follow-up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	70	50	31.44	54.73	23.29
Median	70	50	32.00	59.00	24.00
Mode	70	50	36.00	66.00	30.00

judged to be a wide range of performance.

Table 28 presents the levels of Gross Motor skills development of the handicapped children at the time of follow-up assessment. The diversity of the children's performances during this assessment is much greater than their performances at the time of program enrollment. The lowest skills are approximately eighteen (18) months below the mean age level, while the highest skills are in excess of four months above the mean chronological age level. The magnitude of the skills range increased significantly from the time of initial assessment.

Table 29 presents the mean score comparisons between groups for initial and follow-up assessment of Gross Motor skills development. The performance differences between the two groups is also presented.

At the time of initial assessment of Gross Motor skills development, the lowest skill performances of the nonhandicapped children was eight months greater than the performance of their handicapped peers. The highest skill performances of the nonhandicapped group were in excess of ten (10) months above the mean performance of their handicapped peers. The magnitude of the performance ranges for both groups was similar, with the skill range for nonhandicapped children only two months greater than the skill range of their handicapped peers.

At the time of posttesting, the lowest skill performances of the handicapped group were six months below the performance of their nonhandicapped peers, and the highest skill performances were eight months below the performances of the nonhandicapped group. The posttest performance of the handicapped group

TABLE 29

Pretest/Posttest Gross Motor Skills Mean Score Comparisons for Nonhandicapped and Handicapped Children

Group	Mean Pretest Lowest Skill	Mean Pretest Highest Skill	Mean Pretest Magnitude of Range	Mean Posttest Lowest Skill	Mean Posttest Highest Skill	Mean Posttest Magnitude of Range
Nonhandicapped (n=91)	32.65	52.11	19.46	37.91	63.21	25.30
Handicapped (n=70)	24.33	41.36	17.03	31.44	54.73	23.29
Difference Between Groups	8.32	10.75	2.43	6.47	8.48	2.01

TABLE 30

Gross Motor Mean Gain Scores for Nonhandicapped and Handicapped Children Across a Nine Month Programming Interval

Group	Pre/Posttest Lowest Skill Comparison	Pre/Posttest Highest Skill Comparison
Nonhandicapped (n=91)	5.66	11.35
Handicapped (n=70)	7.11	13.37

demonstrated a two month reduction in the performance gap between these children and their nonhandicapped peers in the area of Gross Motor skills development.

The results of the Gross Motor skill comparisons reveals that both groups demonstrated increased skills at both ends of the skill ranges, and both groups increased the magnitude of their respective skill ranges by approximately six months. The group of handicapped children were able to reduce the performance difference between themselves and their nonhandicapped peers by an interval of two months. This finding may indicate that stronger skill gains were achieved by the group of young children with handicaps. Table 41 depicts the mean gain scores for both groups in the area of Gross Motor skills development.

The data displayed in Table 30 demonstrate gains for both groups of children in the Gross Motor skill area. Gains at the lowest end of the skills range were in excess of five and one-half months, and are in excess of eleven (11) months at the highest end of the skills range. The gains in the lowest skills area are of a lesser magnitude than the gains in the highest skills area. Gains in the lowest skill area for the nonhandicapped group are less than the time spent in program, while the highest skill area gains exceeded the time spent in program by approximately two months.

The data for the group of handicapped children reveals gains of approximately seven months for the lowest skill areas, and gains in excess of thirteen months for the highest skill area. These data clearly demonstrate that the gross motor skill gains for the group of handicapped children were of a greater magnitude than the gains made by their nonhandicapped peers. The gains made in the lowest skill area were less than the time spent in program, while the gains in the highest skill area exceeded the time spent in program by approximately four months.

CHILD PERFORMANCES IN THE FINE MOTOR SKILLS AREA

Each of the children participated in developmental assessment activities in the area of Fine Motor skills development. The time interval between the initial and follow-up assessment was the equivalent of nine months (38 weeks). Assessment items in the fine motor area were adapted, where necessary, to meet individual child needs, and while the majority of items were individually administered, some items were administered within the small group setting where skills were demonstrated in the most naturally occuring environment.

Tables 31 and 32 present the data for the ninety one (91) nonhandicapped children in the assessment pool. Table 31 details child performances at the time of initial assessment, while Table 32 depicts performances during follow-up assessment.

The data in Table 31 reflect the diversity of the children's Fine Motor skill performances at the time of program enrollment, depicted by the differences between the three measures of central tendency. The lowest skill level was less than three months below mean chronological age, while the highest skill level was in excess of eleven months above the mean chronological age. The magnitude of the skills range at the time of initial assessment was in excess of eighteen months, which is reflective

TABLE 31

Fine Motor Skills Levels of Nonhandicapped Children at Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	91	40	37.71	51.24	18.53
Median	91	40	34.00	48.00	18.00
Mode	91	40	36.00	48.00	24.00

TABLE 32

Fine Motor Skills Levels of Nonhandicapped Children at Follow-Up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	91	49	39.37	63.63	24.26
Median	91	49	36.00	62.00	24.00
Mode	91	49	36.00	60.00	24.00

of a wide performance range.

The data presented in Table 32 depicts the developmental skills progress of the nonhandicapped children in the area of Fine Motor skills development. The performances of the nonhandicapped children at the time of follow-up assessment, are less diverse than at initial assessment. The lowest skill level is in excess of nine months below the mean chronological age, which is a greater difference than at the time of initial assessment. The highest skill level is in excess of fourteen months above the mean chronological age, which again reflects an increased discrepancy from initial assessment. The magnitude of the skills range increased by approximately six months from initial to follow-up assessment, and represents a wide performance range.

The data presented in Table 33 depicts the relative consistency of the handicapped children's performances in the Fine Motor skills area at the time of initial assessment. The only area of diversity, described by the three measures of central tendency, is the magnitude of the skills range which is variously indicated as a magnitude of six to fifteen months. The lowest skill area is in excess of sixteen months below the mean chronological age, with the highest skill area slightly below the mean chronological age, as well.

Table 34 depicts the follow-up assessment performances of the handicapped children in the Fine Motor skills area. These performances reflect a greater diversity in terms of lowest and highest skill levels than at the time of initial assessment. However, the three measures of central tendency describe less diversity in the magnitude of the skill range, than at the time of

TABLE 33

Fine Motor Skills Levels of Handicapped Children at Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	70	41	24.64	39.90	15.26
Median	70	41	24.00	42.00	12.00
Mode	70	41	24.00	42.00	6.00

TABLE 34

Fine Motor Skills Levels of Handicapped Children at Follow-Up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	70	50	30.83	51.37	20.54
Median	70	50	32.00	54.00	24.00
Mode	70	50	36.00	60.00	24.00

initial assessment.

The highest skill performances are approximately one month above the mean chronological age, with the lowest skill performances approximately nineteen (19) months below the mean chronological age. The magnitude of the skills range increased to a mean level of twenty (20) months, which is judged to be a wide performance range.

Table 35 presents the mean score comparison data, between groups, for initial and follow-up assessment of Fine Motor skills development. The differences between the mean performances of the two groups is presented.

At the time of initial assessment, the lowest skill performance of the handicapped children was approximately eight months below the performance of their nonhandicapped peers. The highest skill performance of the handicapped children was in excess of eight months below the highest skill performance of their nonhandicapped peers. The magnitude of the skills range was three months greater for the nonhandicapped children, than for their handicapped peers.

The follow-up assessment data reveals that although both groups increased their level of lowest skills, the nonhandicapped children's performances were in excess of eight months greater than their handicapped peers. A comparison of mean performances of highest skill levels revealed an increase in the performance gap of one month, with nonhandicaped children's performances in excess of twelve (12) months above the performance of their handicapped peers. The difference in the magnitude of the skills range for both groups was held relatively constant.

TABLE 35

Pretest/Posttest Fine Motor Skills Mean Score Comparisons for Nonhandicapped and Handicapped Children

Group	Mean Pretest Lowest Skill	Mean Pretest Highest Skill	Mean Pretest Magnitude of Range	Mean Posttest Lowest Skill	Mean Posttest Highest Skill	Mean Posttest Magnitude of Range
Nonhandicapped (n=91)	32.71	51.24	18.53	39.37	63.63	24.26
Handicapped (n=70)	24.64	39.90	15.26	30.83	51.37	20.54
Difference Between Groups	8.07	11.34	3.27	8.54	12.26	3.72

TABLE 36

Fine Motor Mean Gain Scores for Nonhandicapped and Handicapped Children Across a Nine Month Programming Interval

Group	Pre/Posttest Lowest Skill Comparison	Pre/Posttest Highest Skill Comparison
Nonhandicapped (n=91)	6.66	12.44
Handicapped (n=70)	5.59	11.39

Table 36 depicts the mean gain scores for both groups of children. The nonhandicapped children demonstrated in excess of six months gain in the lowest skills area, which is a gain of less magnitude than the time spent in program. The gains in highest skill level for the nonhandicapped children is in excess of twelve (12) months, indicating gains which exceed the time spent in program.

The progress of the handicapped children in the Fine Motor area reflects an approximate five and one half month gain in the lowest skill area. The magnitude of this gain is less than the time spent in program. The highest skill area gain is approximately eleven (11) months, which exceeds the time spent in program.

The gains of both groups are relatively parallel. The data in Table 36 confirm the premise that in the Fine Motor skills area, the developmental skills gap between the two groups was only marginally effected.

A five year boy with severe to profound, multiple handicaps, had been in the CTL Preschool Program since three years of age. For nearly two years this child demonstrated no skill gains in any area. The extent and nature of his handicaps provided the "illusion" that he was unable to interact with peers, and that he preferred to remain in his "own world."

Although the children continued to interact with him verbally and physically, he made no definitive response. One litle girl in particular, consistently interacted with this child, and brought the child toys and other objects. The child consistently pushed the toys away, never looking at the little girl. But, she persisted in initiating interactions with the child.

The staff were convinced that this child had reached a developmental plateau, and that progress beyond that point was improbable. The child's family agreed with the staff's perceptions, since there had been no notable skill level changes within the home setting as well. The family began to wonder if the child should continue participating in the program during the summer session, and brought these concerns to me.

I suggested that although there had been no skills increase, there had also been no skills decrease, and the child was not being "harmed" by his participation in the program. I also indicated to the family that the child was welcome to remain in the program during the summer, if that was their choice.

One week after my conversation with the family, the child entered the preschool classroom, and walked very purposefully to a toy shelf. He stopped in front of the shelf, and inspected the toys. He reached out and removed a a bright yellow truck from the shelf, turned, and stood in front of the shelf, holding the truck. The purposefulness of the behavior was clearly evident to the staff who were observing this child do something he had never done before.

The child began to wander across the classroom, holding the truck. The wandering continued for a brief time, and appeared to be nonpurposeful. Then the child stopped, and began to slowly turn around in a circle, which he repeated several times. Again, the child stopped. He then walked with the truck to the little girl who had been his "friend" for so many months. He sat down on the floor where she was playing, and placed the truck in front of her, and smiled. He had initiated his first interaction with a peer.

What was truly remarkable, was how this child had appeared to be totally impervious to the existence of peers for such a long period of time. The impact of the child's behavior was significant in terms "breaking out" of the plateau in which he appeared to be enmeshed. However, the quantification of his skill gain would be quite minimal, even though the qualitative aspects of his skill gain were highly significant.

CHAPTER SEVEN

RESULTS OF THE STUDY: CHILD PERFORMANCES IN THE AREAS OF SPEECH/LANGUAGE, GENERAL KNOWLEDGE/COMPREHENSION, AND PREACADEMIC SKILLS, AND FAMILY QUESTIONNAIRE DATA

Kristine's parents stood in the classroom, watching with pride as Kristine participated enthusiastically in her favorite activity - fingerpainting with shaving cream. The parents did not appear to be concerned that both hand splints were covered with shaving cream, or that there were globs of shaving cream on her glasses. They were smiling as much as Kristine, as she laughed and played with her peers.

When the activity was completed, Kristine loudly vocalized "duh", to let her teacher know she was finished with the activity. The teacher wiped Kristine's hands and arms, and indicated that they would finish cleaning up at the sink. "Ya", said Kristine, to let the teacher know that she understood the next step of the procedure.

The teacher placed Kristine's feet flat on the floor, and put her hands on Kristine's hips. Kristine slowly reached out and put her hands on the teacher's shoulders, and pulled to a stand. Kristine giggled when she noticed that the shaving cream on her arms had transferred to the teacher's hair.

Kristine, her teacher, and five peers proceeded to the sink to wash off the shaving cream. Kristine stood independently at the sink, using the front of the sink for support. She splashed in the water with her friends until all six children were clean, but wet. Kristine called to the teacher, to let her know she was finished at the sink.

The teacher gave Kristine a towel, and she dried her hands and arms, and then gave the towel to a friend to use. Kristine and the teacher then walked to the center of the classroom to sit on the carpet for story time.

Before the story began, Kristine's mother came and sat beside the teacher and the children on the carpet.

"So," the mother said to the teacher, "How do you think we're ever going to convince this child she's handicapped."

The teacher and the mother both smiled. "Knowing Kristine," the teacher said, "She'll be the one convincing us that she's not."

Chapter Six presented data regarding the frequency of curricular and program component activities, as well as child progress data in the Gross Motor and Fine Motor areas. Chapter Seven presents child progress data for the Speech and Language, General Knowledge and Comprehension, and Preacademic skills areas. Data from the Family Questionnaire are also presented in this Chapter.

CHILD PERFORMANCES IN THE SPEECH AND LANGUAGE SKILLS AREA

Developmental assessment activities in the Speech and Language skill area were engaged in with each child. Where appropriate, a Total Communication approach was used in the administration of, and response to, these skill items, permitting maximum performances for each child.

All items, with the exception of those involving social speech (pragmatics) and mean length of utterance (MLU), were individually administered. The social speech items were assessed during small group activities and play time, which was judged to be the natural setting for child demonstration of these skills.

The child's MLU was calculated from several language samples taken across program activities, to assure that the average length of a child's utterance was measured across settings.

Tables 37 and 38 present data for the nonhandicapped children. Table 37 depicts the initial assessment performances for nonhandicapped children in the area of Speech and Language skills development. The measures of central tendency reflect some variability among the children's performances, with the mode values for the highest skill level describing a bimodal distribution.

The mean performance for lowest skills is approximately ten months below the mean chronological age, while the highest skill level is approximately five months above the mean chronological age level. The magnitude of the skills range is approximately fifteen (15) months.

The data presented in Table 38 describes the follow-up assessment performances for nonhandicapped children in the area of Speech and Language skills development. There was increased variability in the children's performances at the time of follow-up assessment, as described by the measures of central tendency.

The lowest skills level of the nonhandicapped children was approximately twelve months below the mean chronological age, which is a slight increase in skill discrepancy from initial assessment. The mean highest skill level was approximately eight months above chronological age level, which reflects an increase in above age level skills. The magnitude of the range of skills increased significantly across the assessment interval.

TABLE 37

Speech and Language Skills Levels of Nonhandicapped Children at Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	91	40	29.93	45.04	15.11
Median	91	40	24.00	45.00	12.00
Mode	91	40	24.00	36.00 & 48.00	12.00

TABLE 38

Speech and Language Skills Levels of Nonhandicapped Children at Follow-Up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	91	49	36.97	56.99	20.02
Median	91	49	36.00	54.00	18.00
Mode	91	49	48.00	48.00	18.00

Tables 39 and 40 depict initial and follow up assessment data for handicapped children in the area of Fine Motor skills development. Table 39 displays the data for handicapped children at the time of initial Speech and Language skills assessment. The diversity of the children's performances is great, as described by the measures of central tendency. The variability in these children's performances, within this developmental area at the time of enrollment, is far greater than in the fine and gross motor areas.

The lowest skills level was in excess of eighteen months below the mean chronological age. It is interesting to note that the mode statistic described the highest level of skills as seven months above the mean chronological age. The magnitude of the skills range was approximately thirteen months.

Table 40 reveals the follow-up assessment performances of the handicapped children in the area of Speech and Language skills development. The measures of central tendency describe less variability between the children's performances than at the time of initial assessment. The magnitude of skills range continues to demonstrate a similar pattern of discrepancy among the three measures of central tendency as at the time of initial assessment.

The lowest skill level is in excess of eleven months below the mean chronological age, which reflects a seven month positive difference since initial assessment. The highest skill level is approximately five months below the mean chronological age, which is similiar to the performances at initial assessment. The handicapped children's levels of Speech and Language skills development remained below chronological age level expectancies.

TABLE 39

Speech and Language Skills Levels of Handicapped Children at Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	70	41	22.24	35.36	13.12
Median	70	41	18.00	34.00	11.00
Mode	70	41	12.00	48.00	6.00

TABLE 40

Gross Motor Skills Levels of Handicapped Children at Follow-Up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	70	50	28.60	44.97	16.37
Median	70	50	24.00	48.00	13.00
Mode	70	50	24.00	48.00	6.00

Table 41 provides comparison data for mean initial and follow-up assessment performances for both groups in the area of Speech and Language skills development. The differences between the two groups are presented in this table.

At the time of initial assessment of Speech and Language skills development, the lowest skill performances for the nonhandicapped children were in excess of seven months above the performance of their handicapped peers. The highest skill performances of the nonhandicapped group were in excess of nine months above the mean performance of the group of handicapped children. The magnitude of the performance ranges for both groups were similar, reflecting a difference of only two months.

At the time of follow-up assessment, the lowest skill performances of handicapped children were in excess of eight months below their nonhandicapped peers. The highest skill performances of the handicapped group were approximately twelve months below the performances of their nonhandicapped peers. The magnitude of the skills range increased for both groups, with the nonhandicapped children's skill range increasing approximately five months, while their handicapped peers increased their skills range by aproximately three months. In the Speech and Language area, it would appear that the performance gap between the two groups was increased across the measurement interval.

The results of the Speech and Language skills assessment comparisons reveal that both groups demonstrated increased skills at both ends of the skill continuum, and both groups increased the magnitude of their respective skills ranges. However, at the time of follow-up assessment, the mean skill differential between the

TABLE 41

Pretest/Posttest Speech and Language Skills Mean Score Comparisons for Nonhandicapped and Handicapped Children

Group	Mean Pretest Lowest Skill	Mean Pretest Highest Skill	Mean Pretest Magnitude of Range	Mean Posttest Lowest Skill	Mean Posttest Highest Skill	Mean Posttest Magnitude of Range
Nonhandicapped (n=91)	29.93	45.04	15.11	36.97	56.99	20.02
Handicapped (n=91)	22.24	35.36	13.12	28.60	44.97	16.37
Difference Between Groups	7.69	9.68	1.99	8.37	12.02	3.65

TABLE 42

Speech and Language Mean Gain Scores for Nonhandicapped and Handicapped Children Across a Nine Month Programming Interval

Group	Pre/Posttest Lowest Skill Comparison	Pre/Posttest Highest Skill Comparison
Nonhandicapped (n=91)	7.03	11.94
Handicapped (n=70)	6.36	9.61

two groups had increased in favor of the nonhandicapped children, and the handicapped children's skills remained at levels below the mean chronological age level expectancy.

Table 42 depicts the mean gain scores for both the nonhandicapped and handicapped children during the nine month measurement interval. The data reveal that gains were made by both groups, and the gains made at the lowest skill level were strikingly similar. In this area, both groups lowest skill gains were of lesser magnitude than the interval of time spent in program.

The skill gains for highest skills reveal that both groups' gains were in excess of time spent in program. The nonhandicapped children's gains in the highest skills area were in excess of eleven months, while the handicapped children's highest skill gains were approximately nine and one half months.

CHILD PERFORMANCES IN THE GENERAL KNOWLEDGE AND COMPREHENSION SKILL AREA

All children participated in developmental assessment activities in the General Knowledge and Comprehension skills area. Where appropriate, adaptations in the administration of, and response to, individual items were made to accomodate child needs. All items in this skills area were individually administered.

Tables 43 and 44 present the initial and follow-up assessment data for the nonhandicapped children. The data presented in Table 43 describe the nonhandicapped children's performances at the time of initial assessment. The greatest variability noted in the children's performances occurred in the

TABLE 43

General Knowledge and Comprehension Skills Levels of Nonhandicapped Children at Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	91	40	34.80	54.55	19.75
Median	91	40	36.00	54.00	18.00
Mode	91	40	36.00	60.00	12.00 & 24.00

TABLE 44

General Knowledge and Comprehension Skills Levels of Nonhandicapped Children at Follow-Up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	91	49	41.69	69.93	28.24
Median	91	49	41.00	72.00	30.00
Mode	91	49	36.00	84.00	36.00

highest skill level area, and in the magnitude of the skills range. The measures of central tendency describe differing levels of child skills development for these two factors. The distibution of scores in the skills range area was bimodal, as described by the mode statistic.

The mean level of lowest skills is in excess of five months below the mean chronological age level, while the mean level of highest skills is in excess of fourteen (14) months above age level expectancy. The magnitude of the skills range is greater than nineteen (19) months.

The data presented in Table 44 depicts the developmental progress of the nonhandicapped children in the area of General Knowledge and Comprehension skills development. The measures of central tendency describe increased variability among the measured performances of the nonhandicapped children since the time of initial assessment.

The mean performance in the lowest skills area was approximately seven months below the mean chronological age level. The highest skills area reflected a follow-up performance in excess of twenty (20) months above the mean chronological age level expectancy. The magnitude of the skills range increased by approximately nine months across the measurement interval.

Tables 45 and 46 present the initial and follow-up assessment data for handicapped children in the area of General Knowledge and Comprehension skills development. The data in Table 45 depicts the initial assessment performances of the handicapped children in the area of General Knowledge and Comprehension skills development. The measures of central tendency describe

TABLE 45

General Knowledge and Comprehension Skills Levels of Handicapped Children at the Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	70	41	31.11	43.84	12.73
Median	70	41	32.00	44.00	10.00
Mode	70	41	24.00	30.00 & 36.00 & 54.00	6.00

TABLE 46

General Knowledge and Comprehension Skills Levels of Handicapped Children at Follow-Up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	70	50	35.84	56.01	20.17
Median	70	50	36.00	60.00	24.00
Mode	70	50	36.00	60.00 & 84.00	6.00 & 36.00

significant variability among the children's performances. The mode statistic describes a tri-modal distribution in the highest skills range area. The handicapped children's initial skills in this area may be more diverse than in any of the other developmental areas measured.

The lowest skills level was in excess of nine months below the mean chronological age. The highest skills level was in excess of two months above the mean chronological age. The magnitude of the skills range at the time of initial assessment, was in excess of twelve (12) months.

The data presented in Table 46 depicts the follow-up assessment performances of the handicapped children in the area of General Knowledge and Comprehension skills development. There is little variability noted in the lowest skill area as described by the measures of central tendency. In the highest skill area, the distribution is bimodal, reflecting performance variability. The mode statistic also describes a bimodal distribution for the magnitude of skill range area.

The lowest skill level, at the time of follow up assessment, was in excess of fourteen (14) months below the mean age level, while the highest skill level was reported as approximately six months above the mean chronological age level expectancy. The magnitude of skills range was reported in excess of twenty months, which represents a skills range increase in excess of seven months from initial assessment.

Table 47 presents the mean score comparison data in the area of General Knowledge and Comprehension skills for both groups at initial and follow-up assessment. The data reveal that both

TABLE 47

Pretest/Posttest General Knowledge and Comprehension Skills Mean Score Comparisons for Nonhandicapped and Handicapped Children

Group	Mean Pretest Lowest Skill	Mean Pretest Highest Skill	Mean Pretest Magnitude of Range	Mean Posttest Lowest Skill	Mean Posttest Highest Skill	Mean Posttest Magnitude of Range
Nonhandicapped (n=91)	34.80	54.55	19.75	41.69	69.93	28.84
Handicapped (n=70)	31.11	43.84	12.73	35.84	56.01	20.17
Difference Between Groups	3.69	10.71	7.02	5.85	13.92	8.67

TABLE 48

General Knowledge and Comprehension Mean Gain Scores for Nonhandicapped and Handicapped Children Across a Nine Month Programming Interval

Group	Pre/Posttest Lowest Skill Comparison	Pre/Posttest Highest Skill Comparison
Nonhandicapped (n=91)	6.89	15.03
Handicapped (n=70)	4.76	13.09

groups made gains in lowest and highest skill level areas, and the magnitude of their respective skills ranges increased dramatically.

The lowest skill levels for both groups, at initial and follow-up assessment, were below the mean chronological age level. The nonhandicapped children's lowest skills level was in excess of three months greater than their handicapped peers at the time of initial assessment. At the time of follow up assessmnt, the performance gap had increased by approximately two months, in favor of the nonhandicapped children.

Highest skill level performances for both groups were above the mean chronological age level expectancy at both initial and follow-up assessment. The nonhandicapped children's highest skill level was in excess of ten months greater than their handicapped peers at the time of initial assessment. The performance gap increased at the time of follow-up assessment, with a performance difference in excess of thirteen (13) months between the two groups.

The magnitude of skills ranges for both groups differed by approximately seven months at the time of initial assessment, and increased to an eight month difference at the time of follow-up assessment. Both groups demonstrated gains at both ends of the skills continuum. Table 48 presents the mean gain score information for both groups of children in the General Knowledge and Comprehension skills area. As noted in the table, gains were made by both groups at both ends of the skills continuum.

The nonhandicapped children increased their lowest skill levels in excess of six months during the nine month measurement interval. Their highest skills increase reflected gains of approximately fifteen (15) months across the nine month interval.

The gains for handicapped children in the lowest skills area were in excess of four months during the measurement interval. The highest skill area gains made by the handicapped children exceeded thirteen (13) months, across the nine month measurement interval.

CHILD PERFORMANCES IN THE PREACADEMIC SKILL AREA

Children from both groups, whose chronological age was greater than four years, were administered developmental assessment items in the Preacademic skills area. The items chosen for assessment were from the Readiness, Manuscript Writing and Math sections of the Inventory of Early Development-BRIGANCE (Brigance, 1978). Due to the small number of items selected from the Manuscript Writing and Math sections, these items were grouped with the Readiness items to comprise the Preacademic skills assessment area. (See Chapter Two for a detailed description of items.)

A total of thirty three (33) children from the nonhandicapped group, and twenty nine (29) children from the handicapped group met the criteria for chronological age. These children were engaged in developmental assessment activities in the Preacademic skills area. The mean chronological age of both groups at the time of initial assessment was fifty one (51) months, with a mean chronological age at follow-up assessment of sixty (60) months.

The sample sizes were too small to accomodate all measures of central tendency, and only mean statistics were computed for this developmental area. Tables 49 and 50 depict the initial and follow-up assessment performances for the nonhandicapped children in the Preacademic skills area.

The data in Table 49 indicates that at the time of initial assessment, both the lowest and highest skill levels for the nonhandicapped children were above the mean chronological age level. The lowest skills were in excess of three months above age level, with the highest skill levels in excess of nine months above age level. The magnitude of the skills range at the time of initial assessment was in excess of eight months.

Table 50 depicts the follow-up assessment data for the nonhandicapped children in the Preacademic skills area. Both lowest and highest skills remained above the mean age level expectancy. The lowest skill level was only slightly in excess of one month above the mean chronological age level, which represents a decrease in the magnitude of this difference from the time of initial assessment. The highest skill level was well above age level expectancy by a full fifteen (15) months, which represents a six month gain in skills magnitude. The magnitude of the skills range increased by approximately three months since initial assessment.

Tables 51 and 52 present the initial and follow-up assessment data for the handicapped children in the Preacademic skills area. The data in Table 51 depicts the initial performances of the handicapped children in the area of Preacademic skills development. Both the lowest and highest skill

TABLE 49

Preacademic Skills Levels of Nonhandicapped Children at Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	33	51	54.27	63.06	8.79

TABLE 50

Preacademic Skills Levels of Nonhandicapped Children at Follow-Up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	33	60	61.39	75.00	13.61

TABLE 51

Preacademic Skills Levels of Handicapped Children at Time of Enrollment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	29	51	35.34	45.17	9.83

TABLE 52

Preacademic Skills Levels of Handicapped Children at Follow-Up Assessment

Measure of Central Tendency	n	Age in Months	Lowest Skill in Range (in months)	Highest Skill in Range (in months)	Magnitude of Skill Range (in months)
Mean	29	60	44.10	60.76	16.66

levels were well below the mean chronological age level. The magnitude of the skill range was in excess of nine months at the time of initial assessment.

The data in Table 52 document the follow-up assessment performances for the handicapped children in the area of Preacademic skills. The lowest skill levels remain below the mean chronological age level. However, the highest skill levels are slightly above the mean chronological age level. The magnitude of the skills range increased significantly from the initial assessment level of nine months, to the current level of sixteen (16) months.

Both groups evidenced increased performances in the Preacademic area from initial to follow-up assessment. Table 53 presents the mean score comparisons for both groups, and the differences between the two groups.

Table 53 presents mean score comparison data for both groups of children in the area of Preacademic skills development. The difference between the two groups lowest skill performances at the time of initial assessment was in excess of eighteen (18) months, in favor of the nonhandicapped children. The highest skill levels, at the time of initial assessment, revealed a seventeen (17) month performance difference in favor of the nonhandicapped children. The magnitude of the skills range for the handicapped children was one month greater than for the nonhandicapped children.

At the time of follow-up assessment, the lowest skill levels for the nonhandicapped children was seventeen (17) months above the skill levels of their handicapped peers. The highest

TABLE 53

Pretest/Posttest Preacademic Skills Mean Score Comparisons for Nonhandicapped and Handicapped Children

Group	Mean Pretest Lowest Skill	Mean Pretest Highest Skill	Mean Pretest Magnitude of Range	Mean Posttest Lowest Skill	Mean Posttest Highest Skill	Mean Posttest Magnitude of Range
Nonhandicapped (n=33)	54.27	63.06	8.79	61.39	75.00	13.61
Handicapped (n=29)	35.34	45.17	9.83	44.10	60.76	16.66
Difference Between Groups	18.93	17.89	(1.04)	17.29	14.24	(3.05)

TABLE 54

Preacademic Mean Gain Scores for Nonhandicapped and Handicapped Children Across a Nine Month Programming Interval

Group	Pre/Posttest Lowest Skill Comparison	Pre/Posttest Highest Skill Comparison
Nonhandicapped (n=33)	7.36	11.94
Handicapped (n=29)	9.07	15.59

skill levels for the nonhandicapped children exceeded their handicapped peers by fourteen (14) months. The lowest skills difference, between the two groups, was reduced by one and one half months at the time of follow-up assessment. The highest skills difference had been reduced by three and one half months across the measurement interval.

The magnitude of the skills range at the time of follow-up assessment was in excess of three months greater for the handicapped children, than for their nonhandicapped peers. Both groups skill ranges had increased significantly across the measurement time period.

The data displayed in Table 54 depicts the magnitude of the skill gains made by each group of children in the area of Preacademic skills development. The measurement interval was nine months (38 weeks).

The nonhandicapped children demonstrated gains in excess of seven months in the lowest skill area across the measurement interval. The magnitude of these gains is less than the time spent in program. The highest skill level gains, for the nonhandicapped group, was in excess of eleven (11) months, which exceeds the time spent in program.

In the Preacademic skills area, the handicapped children's gains were of greater magnitude than their nonhandicapped peers. The lowest skill area gains were slightly greater than nine months, which equals the time spent in program. The gains in the highest skills area were in excess of fifteen (15) months, which exceeds the time spent in program.

SUMMARY OF CHILD PERFORMANCES AND SKILL GAINS

The developmental assessment data clearly demonstrate that both handicapped and nonhandicapped children benefitted from the experiences provided them by the CTL Preschool Program. Based on assessment results, skill gains are noted for all major developmental areas assessed. Although the two groups remained distinctly different, in terms of their skill performances, both groups demonstrated positive changes across the nine month measurement interval.

From the extent to which the activities and experiences provided these children are documented, and frequency of occurrence noted, it is possible to infer a positive relationship between the program's philosophy, curriculum and program components, and the measurable progress of the children. Developmental areas are equally addressed during each day of the program, when structured small group activities, and program component activities are viewed in combination. The relative frequency and intensity of developmental activites, provided within the three hour program format, appear to have directly effected the extent and magnitude of the children's skill gains.

INTEGRATION WORKS FOR FAMILIES:
Program Outcomes for Families

Beginning in 1988, families were asked to complete a five item, open-ended questionnaire, at the time of their child's exit from the program. (See Appendix C.) Families whose children exited the program prior to 1988, were mailed the questionnaire for completion. A total of two hundred thirty one (231) questionnaires were distributed to families whose child had exited the program. One hundred eighty two (182) questionnaires were returned, which represents a response rate of seventy nine percent (79%). Forty three percent (43%) of the questionnaires returned were from families of young children with handicaps, with the remaining fifty seven (57%) of the responses coming from families with nonhandicapped or at-risk children.

The questionnaire was designed by the father of a child enrolled in the CTL Preschool Program, and was designed to measure family satisfaction with the program (Benson, 1988). Two of the items request that families indicate their perceptions of the program's strengths (what do you like about the program), as well as the program's weaknesses (what would you like to see improved). Two items ask families to characterize the program's impact on their child. The final item asks families to indicate their overall reaction to their child's participation in an integrated program, and the extent to which they would advocate for their child's future involvement in integrated settings. The responses to the questionnaire are presented for each of the five questions.

QUESTION #1
What do you like about the CTL Preschool Program?

The responses to this question consistently focused on the program's Total Integration format, the program's cost, and the extent to which the program fostered social interaction skills development for all children. An overwhelming number of families commented on the extent to which the program includes families on a daily basis, coupled with the extent to which program staff provide families with continuous, supportive feedback relative to their child's skills development.

Many families mentioned the availability of Speech and Language Therapy services within the program, as a positive factor. Other families discussed the professional training aspects of the program as important. Other families commented on the positive impact of the teacher-child ratio of the program, while others indicated that the extent to which each child's individual needs were identified and met. A large number of families spoke to the flexibility of the program, and the nature and extent of the creative adaptations made by program staff to insure accessibility to all activities by all children.

QUESTION #2
What would you like to see improved?

Responses to this item clearly focused on three issues: (a) the need for more physical space for the program; (b) the need for the program to expand its operational hours; and, (c) the need for greater financial support for the program. These three items were mentioned, as a group, or individually, on all questionnaires.

There were also requests for a "formal" check-in and check-out procedure for children, while other families suggested that the program might encourage greater interaction between and among parents of the children enrolled. Several families suggested that formal parent-teacher conferences would improve the program, while others commented that observation booths for families would be good. Some families commented on the need for additional parking space for child drop-off and pick-up, and other families requested a greater focus on academic-type skills.

Many families followed-up their suggestions with a statement indicating that the philosophy, operational framework, curriculum and program components should remain as they are, further reporting that they judged these aspects of the program to be "outstanding." Many families used this question as an opportunity to express their willingness to assist the program "in any way," to achieve expanded physical facilities, operational hours, and financial support.

QUESTION #3
How would you say the program has affected your child?

The most consistent responses to this item involved the child's increased self-concept, increased levels of independence, increased social interaction skills, and development of more appropriate behaviors. Many families indicated that their child's skill levels had increased in all areas, while others reported skill increases in areas of developmental weakness. Nearly all families reported that their child "really liked school," and looked forward to attending. Many families characterized their child's "disappointment" on days when preschool was not in session, as well as their child's anxiously awaiting the start of preschool after vacation periods.

Other families discussed the extent to which their child is now willing to "try" new activities and experiences, which had previously been an area of difficulty for the child. Some families reported the extent to which the child's attention span had increased significantly, as well as the child's increased overall attentiveness to persons and events within daily activities.

Many families indicated that the preschool had promoted their child's "readiness" for the next educational setting. Others discussed the fact that their child had developed a positive image of "school," and was excited and ready for their next school environment.

QUESTION #4
Have you noticed any changes (behavioral, educational or social), which you can attribute to attending this program?

Families reported a diversity of changes, unique to their child, in response to this item. There were three response themes which were characterized across all responses: (a) the child has developed play skills, and the ability to initiate and maintain play activites, independently; (b) the child has developed increased turn-taking skills, in terms of both social play and communicative interactions within the family unit; and, (c) the child has developed increased "understanding" and "empathy" for peers, and "appreciation" for each person's individuality.

Many families reported on distinct, positive behavioral changes which their child had developed through participation in the program. Still other families discussed their child's acquisition of skills which they had previously been told the child would "never" develop. Several families reported positive changes within the family, that they believed were "necessary" to accomodate the child's new skills, abilities and independence.

QUESTION #5
How do you feel about your child attending an integrated program, made up of both handicapped and nonhandicapped children, in the future?

All families responded that they believed their child should continue to participate in an integrated program in the future. Most families indicated that the extent to which their child's CTL Preschool experience had provided the family with increased insight and understanding of the importance of integration for all children, was significant.

Many families reported that they believed that their child would be "disappointed" if they could not attend school with their "friends," while others indicated that they believed that integration strengthened the educational experience for all children. Other families suggested possible obstacles to future integration, and provided simple, straightforward strategies for overcoming the perceived obstacles and facilitating integration. Several families acknowledged that integrated settings were "hard to come by, but definitely worth fighting for."

In all one hundred eighty two (182) completed questionnaires, there were no negative statements relative to integration. More significantly, the extent of family commentary relative to the importance of children with handicaps being with their nonhandicapped peers, was overwhelmingly positive. As one parent of a nonhandicapped child responded:

> I have only good things to say

about the integrated program. It benefits everyone involved. The children are in an atmosphere made easy for learning from each other, as well as from adults. They are also exposed to many children with many differences, but all these differences are accepted as a matter of course.

CHAPTER EIGHT

THREE YEARS LATER...WHAT HAVE WE LEARNED?

Summary, Discussion, and Recommendations of the CTL Preschool Program Study

It was the week before Halloween. We were painting large, paper bag pumpkins, orange. Everyone put on a paint shirt, and everyone was busy painting.

Daniel, a child with severe, spastic, quadraplegic, Cerebral Palsy, had just turned three years of age, and was painting too...for the first time. He was a very prosocial child, who was determined to do everything his peers did. Daniel's paintbrush was "adapted" with a "wad" of blue playdough attached to the handle. This adaptation made the brush easier to hold, and if involuntary release occurred, the playdough would stick to his hand, permitting him to retain the brush and grasp it again. He was "draped" in a large paint shirt, which covered both his body and his wheelchair.

Daniel painted for a long time, vocalizing his pleasure with the activity. When he was finished, he had paint in his hair, and on his face, hands and arms. He looked like most of the other "painters" in the room. When we removed his paint shirt, we found that the orange paint had seeped through onto his white turtleneck.

When Daniel's mother arrived to pick him up, she saw the paint on his shirt, as well as in his hair. Tears rolled down her face.

Daniel's teacher rushed over, to tell the mother that the paint was washable, and would come out of his shirt and hair. As the teacher communicated this information, Daniel's mother's crying escalated. The teacher apologized for the painting "mess," and the mother said, "No, no, no."

Finally, the mother stopped crying, and said, "I don't care about his shirt, or his hair. I wouldn't care if there were paint all over him, and all over his chair. Don't you see, I'm crying because I'm so happy."

The teacher was very confused, and said, "I don't think I understand."

"Well," said the mother, "It's the first time in Daniel's life that he's been messy and dirty, just like every other three year old, and I'm so happy."

The mother stayed, and talked for quite awhile. She told of the number of times she had seen other young children, after they'd been playing, and was always saddened because her child never had that opportunity. She talked about listening to other parents say to their children, "Oh, you're dirty again!", and realized that she might never say that to her son. She indicated that she knew it was a "little thing" to be sad about, but that it affected her quite deeply.

When she got ready to leave, she thanked the teacher for providing Daniel with the opportunity to be "just like everyone else." She also thanked the teacher for the white turtleneck, full of orange paint!

The importance of integration may well be contained in small factors like paint on a shirt, or wet clothes from enthusiastic play with peers in the water table, or grass stains on the knees of pants from rolling with peers in the grass. Such things are hard to quantify. What is apparent is that these subtle factors can make a significant difference in a child and family's life.

SUMMARY OF THE STUDY

Total Integration is the operational philosophy of the CTL Preschool Program at the University of North Dakota. The program enrolls equal numbers of handicapped and nonhandicapped children, at each age level. Each child's individuality is recognized, but without attention called to their individual differences.

Total Integration is an extremely logical and developmentally appropriate approach to early education. It recognizes and embraces, established young child learning theories and principles of human behavior. Total Integration requires of families and staff the recognition that all children are, quite simply, children first. The Preschool's classroom structure and organization of the day reflects a compilation of typical nursery school, preschool and childcare activities, affording each child a normalized environment in which to grow and develop.

The CTL Preschool Program operationalizes Total Integration, providing a developmentally sequenced, structured preschool program with individual adaptations made within the program to accomodate unique child needs. The children are grouped by chronological age, not by developmental age or ability, and the activities presented are age-level appropriate. It is the teacher's responsibility, within this model, to assure equal access, for all children, to all aspects of the program.

The teaching staff of the CTL Preschool brings together graduate and undergraduate students from the fields of Early Childhood Special Education, Special Education, Communication Disorders, Early Childhood Education, and Elementary Education. The training mission of the CTL Preschool Program is diverse, and somewhat nontraditional when compared to other higher education training models, since it serves as a training vehicle for the development of positive awareness and perceptions of children with handicaps. The program provides positive experiences for individuals which serve to eliminate stereotypes and prejudicial thinking relative to the need for persons with handicaps and disabilities to be separated from the mainstream of community life.

The current study seeks to investigate the effects of Total Integration on the manifest behavior and skills development of young children with handicaps and their nonhandicapped peers, as well as the effects on their families. A secondary focus of the study is to delineate and describe the program curricula and structure, postulating direct linkage between the program activities and child and family outcomes.

Two hundred ninety six (296) young children, ranging in age from twenty four (24) to seventy two (72) months, at the time of enrollment, participated in the study. The study began in September, 1986, and concluded in August, 1989, a period of thirty six (36) months. The study involved handicapped, nonhandicapped and at-risk children enrolled in the CTL Preschool Program. Forty eight percent (48%) of the children were identified as handicapped, with thirty eight percent (38%) identified as nonhandicapped, and fourteen percent (14%) of the children identifed as being at-risk. Sixty three percent (63%) of the children were male, and thirty seven percent (37%) of the children were female.

Extensive demographic and descriptive data were collected from the families participating in the study, in an effort to judge the representative nature of the research population. The children and families of the CTL Preschool, were judged to be typical and representative of the greater population of young children and families. The representative nature of the sample population was determined through analysis of basic demographic and family descriptive data.

The level of family knowledge of, and previous participation in, a totally integrated program, were also judged to be representative of the greater population of families of young children. Although some families reported they had experienced a mainstreaming setting, or integration of their child in a community activity, no family or child had experieced a totally integrated program prior to attending the CTL Preschool Program.

One characteristic of the research population which may not be representative of the greater population is family concern that integration might negatively effect their child. Only one family indicated concern that their nonhandicapped child might "pick up bad habits" from his handicapped peers. Previous research studies have typically reported a higher incidence of these concerns among families of nonhandicapped children.

The current study asks the following questions:

1. What are the effects of Total Integration on the behavior and skills acquisition of two to six year old handicapped and nonhandicapped children?

2. What programmatic components and structures enhance Total Integration, in terms of child benefits?

3. What are the effects of Total Integration on the families of young handicapped and nonhandicapped children?

4. To what extent are the program's operational framework, curriculum, and environment directly related to child progress and skill gains?

DISCUSSION OF THE FINDINGS OF THE STUDY

The Children

The mean age of the children, at the time of program entry, was forty (40) months. The children were enrolled in the program as a result of the child's family, or primary service agency referral. The mean length of time a child remained in the program was two academic year semesters, which equals thirty two (32) weeks of service delivery across a thirty eight (38) week time frame.

The majority of the children exited the program at the time of their transition into another preschool program, or at the time of kindergarten entry. Some children exited the program as a result of family relocation, or other factors. No child exited the program as a result of family dissatisfaction with the program, or the program being judged to be inappropiate in meeting the child and family's needs.

Child Performances and Skill Gains

The developmental assessment data demonstrate that both handicapped and nonhandicapped children, enrolled in the CTL Preschool Program, benefitted from the experience. Based on assessment results, skill gains are noted for all major developmental areas assessed. Although the two groups of children remained distinctly different, in terms of their skill performances, both groups demonstrated positive changes across the nine month measurement interval.

The extent to which the activities and experiences provided these children are documented, and frequency of occurrence noted, it is possible to infer a positive relationship between the program's philosophy, curriculum and program components, and the measurable progress of the children. Developmental areas have been relatively equally addressed during each operational day of the program, when structured small group activities, and program component activities are viewed in combination. The relative frequency and intensity of developmental activites, provided within the three hour program format, is judged to directly effect the extent and magnitude of the children's skill gains.

Although comprehensive, detailed records of activities and experiences were maintained across the thirty six month period, it is impossible to determine the extent to which the incidental experiences of the children during play time, or circle time, or outdoor play, or any other activity may account, in part, for their positive progress. It does, however, seem strongly apparent that the experiences of the children within the framework of the CTL Preschool Program, accounted in large measure for the significant gains made in all developmental areas.

The program did not eradicate the skill performance differences between the handicapped children and their nonhandicapped peers. The program did, in several instances, facilitate the narrowing of the performance differences between the two groups. More importantly, the Program provided an environment where the skill levels of young children with handicaps could increase at a rate commensurate with the rate of skills increase of their nonhandicapped peers.

Table 55 presents the mean differences between groups across all developmental areas assessed. The differences reflect the extent to which the magnitude of the nonhandicapped children's performances are greater than the performances of their handicapped peers.

At the time of initial assessment, the greatest difference between the two groups was noted in the area of Preacademic skills, where the nonhandicapped children's lowest skills level was in excess of eighteen months above the mean performance for the handicapped children. The difference noted here is greater than twice the average performance difference across all developmental areas.

The magnitude of the difference noted at the time of initial assessment in the Preacademic skills area may be an artifact of the activites and experiences which the two groups of children were provided prior to their enrollment in the preschool program. There is a strong possibility that the handicapped children may not have been exposed to the types of preacademic or "readiness" skills which nonhandicapped, like-age children are typically provided within their home or community setting.

Nonhandicapped young children are generally assumed to be ready to develop academic skills. The same assumption is not made

TABLE 55

Mean Differences Between Skills Levels of Both Groups For All Developmental Areas Across 9 Month Program Interval

Developmental Area	Mean Difference Pretest Lowest Skill	Mean Difference Pretest Highest Skill	Mean Difference Posttest Lowest Skill	Mean Difference Posttest Highest Skill
Gross Motor	8.32	10.75	6.47	8.48
Fine Motor	8.07	11.34	8.54	12.26
Speech/Language	7.69	9.68	8.37	12.02
General Knowledge and Comprehension	3.69	10.71	5.85	13.92
Preacademic	18.93	17.89	17.29	14.24
Total Mean Difference	9.34	12.07	9.30	12.18

for many young handicapped children. The differential set of experiences, prior to attending preschool, may account for the significant difference noted in the initial assessment data.

The area of least difference between groups, at the time of initial assessment, was in the lowest skill levels in the General Knowledge and Comprehension area. Here, the difference between groups was only slightly in excess of three months at the time of program enrollment. Since many of the intervention activities provided young children with handicaps focus on the area of general cognition, this may account for the lesser difference between the two groups at the time of program enrollment.

The lowest skill levels, in the areas of Gross Motor, Fine Motor and Speech and Language skills, reflected a performance difference of seven to eight months, at the time of initial assessment. The magnitude of this performance difference remained constant in the areas of Fine Motor and Speech and Language skills, across the measurement interval. The magnitude of the performance difference in the Gross Motor area diminished across the nine month measurement interval.

The greatest performance difference for the highest skill levels, at the time of initial assessment, was again noted in the area of Preacademic skills. The area of least performance difference for highest skill levels was in the Speech and Language area. Both the Gross Motor and General Knowledge and Comprehension areas reflect a skills difference in excess of ten months, while the skills difference in the Fine Motor area exceeded eleven months.

Young children with handicaps are typically provided significant instruction, intervention, and exposure to skills in areas of skill deficit. The extent to which these children are provided with exposure to higher level skills may be minimal as a result of their frequent placement with other handicapped children. In contrast, nonhandicapped children typically have greater exposure to a full range of skills demonstration and modelling. This difference in exposure to higher order skills may account, in part, for the magnitude of performance difference noted between the two groups at the upper end of the skills range.

At the time of follow-up assessment, the greatest difference between the two groups in terms of lowest skills, was noted in the Preacademic area, where the magnitude of skills difference was in excess of seventeen months. The difference at the time of follow-up assessment was, however, one and one half months less than it had been at the time of initial assessment. The area of least performance difference was General Knowledge and Comprehension skills, where the magnitude of performance difference was slightly greater than five months.

The magnitude of the performance difference between groups in the Gross Motor area had been reduced by two months at the time of follow-up assessment. The difference noted for lowest skills was in excess of six months, compared with the difference of eight months noted at the time of program enrollment.

Differences in fine motor and speech and language skills, at the lowest skill level, were in excess of eight months in each area. The magnitude of performance difference in both areas increased slightly across the measurement interval.

The magnitude of the performance differences in the highest skill levels, at the time of follow-up assessment, are similar across four of the five developmental areas. The Fine Motor and Speech and Language areas revealed differences in excess of twelve months, while the difference noted in General Knowledge and Comprehension skills was approximately thirteen months. The difference in Preacademic skills was in excess of fourteen months, which was the difference of greatest magnitude at the time of follow-up assessment. However, the magnitude of the difference for highest skills in the Preacademic area had been reduced by three and one half months across the measurement interval.

The area of Gross Motor skills demonstrated the least difference between the groups in terms of highest skills levels, with a performance difference of eight and one half months. The magnitude of this difference is in excess of two months less than the difference between the two groups highest skills at the time of initial assessment.

The magnitude of the skills difference between the two groups increased in three developmental areas, and decreased in two developmental areas across the nine month prgram interval. Although the two groups remained distinctly different in terms of their manifest skill levels, the handicapped children's skill gains across developmental areas were of similar magnitude of the gains of their nonhandicapped peers. Table 56 presents the mean skill gain data for both groups across all developmental areas.

The data displayed in Table 56 clearly indicates that substantial skills gains were made by both groups of children across the nine month programming interval. The greatest gains

TABLE 56

Mean Gain Scores for Nonhandicapped and Handicapped Children for All Developmental Areas Across a Nine Month Programming Interval

	NONHANDICAPPED CHILDREN		HANDICAPPED CHILDREN	
Developmental Area	Pre/Posttest Lowest Skill Gains Made	Pre/Posttest Highest Skill Gains Made	Pre/Posttest Lowest Skill Gains Made	Pre/Posttest Highest Skill Gains Made
Gross Motor	5.66	11.35	7.11	13.37
Fine Motor	6.66	12.44	5.59	11.39
Speech/Language	7.03	11.94	6.36	9.61
General Knowledge and Comprehension	6.89	15.03	4.76	13.09
Preacademic	7.36	11.94	9.07	15.59
Mean Program Gain	6.72	12.54	6.58	12.61

noted were made by both groups at the upper end of the skill ranges, where the gains were consistently in excess of the time spent in program.

Skill gains at the lower end of the skill ranges were of lesser magnitude for both groups, and, in one instance, exceeded the length of time spent in program. The mean skill gain at the lower end of the skills range was approximtely six and three quarters months, or roughly equivalent to two-thirds of the time spent in programming. Since Preacademic skills constituted the area where the handicapped children's performances were the most disparate from their nonhandicapped peers, it is interesting to note that the handicapped children's gains at the lower end of the Preacademic skills range minimally exceeded the length of time in program.

Skill gains at the upper end of the skills range for both groups, were in excess of the time spent in program. The handicapped children's skill gains ranged from 9.61 months in the Speech and Language area, to a 15.59 month gain in the Preacademic skills area. At the upper end of the skills range, the nonhandicapped children demonstrated skill gains which ranged from 11.35 months in the Gross Motor area, to 15.03 months in the Preacademic skills area.

The mean skill gain at the upper end of the skills range was in excess of twelve months for both groups. This gain indicates that the skills development of both groups of children exceeded the amount of time spent in program. Overall, the mean skill gains for both groups were nearly identical in magnitude. Both groups made gains in excess of six months at the lower end of the skills range, while the gains for both groups at the upper end of the skills range was in excess of twelve months.

These data demonstrate program effects of equal magnitude for both handicapped and nonhandicapped children enrolled in the CTL Preschool Program. The extent to which both groups of children manifest equivalent skill gains demonstrates the extent to which the Total Integration model of the CTL Preschool met all children's needs, and the extent to which both groups benefitted equally from their participation in the Program.

The Families

The families who participated in the CTL Preschool Program, from September, 1986 through August, 1989, were judged to be representative of the greater population of families of young children. Both single parent, and two parent families participated in the study. Family occupations and income levels were distributed across a full range of employment and economic levels. The education levels of the families were diverse, and representative of the comprehensive range of educational levels found in the population at-large.

The extent to which these families were unfamiliar with the concept and practice of integration, is judged to be fairly representative of all families with young children. The families were willing to explore and learn about integration, and were willing to provide their child with an opportunity to participate in a nontraditional, totally integrated program.

A questionnaire at the time of their child's exit from the program revealed the extent to which these families valued and prized their experiences with integration. All families indicated that their experiences with integration had been positive, and that they would seek integrated programs for their child in the future.

Perhaps the most appropriate way to view families perceptions of the importance of integration is through their own words:

> Integration is a must.
>
> Integration is very good for children, and important for them to see that handicapped children are and can be a part of their world.
>
> Integration is a great idea!
>
> If nonhandicapped and handicapped children are provided with an opportunity to learn from one another, this will make for a more informed population.
>
> I think it works out wonderful for the children to be together, to learn together, play together, eat together, party together, etc. I would love for her to continue with this sort of program throughout her life in public school and college.
>
> Integration is not just something that I want, it is something I will insist upon.
>
> I am very pleased. Everyone deserves the same chance and the same acceptance. I hope the nonhandicapped child of today, will be the accepting adult in our child's future.

> I certainly will do everything possible to see that she is enrolled in integrated programs at all levels of her life.
>
> From the time my child started in the program, until now, he has learned to walk and to eat, and is beginning to say a few words. I truly believe that the CTL Program has played a big part in helping him achieve these accomplishments.
>
> Integration is excellent. People are more the same than they are different, and the more exposure gained early to differences, the less the differences will be noted.
>
> I am excited and pleased with integration. He has already learned so much about how different is just different, but okay.
>
> I feel integration is a wonderful concept. To have our children go to school together prevents any fear that may turn into ignorance or, worse yet, prejudice.
>
> We would like our child to attend an integrated program in the future. Integration is one of the aspects of the program that we like the best, and believe it adds to our children's sensitivity to other individuals' needs.
>
> We feel very positive about integration, and only mourn that more integration does not happen in the public schools, and throughout life.

When families discussed the impact of the CTL Preschool's Total Integration model, on their child, they characterized it in the following ways:

My child has become much more "people oriented," and watches what other people are doing.

She has learned to relate well with children her own age, and to share toys, and to have more patience. Her behavior at home has improved drastically, and she is a much better child all around! She loves the school!

Great strides have been made over the last year, and much of this is directly attributable to the preschool program.

My child has learned to use other children for cues about his own behavior. Because of this program, my child's behavior is much more appropriate, and we are a happier family.

The program has affected my child's life profoundly. His skills have improved greatly, and I continue to be surprised by the things he can do. We've worked on many things, for a long time, but since he's been in this program his behavior and skills have "skyrocketed". I attribute all of his improved behavior and new skills to the CTL Preschool Program.

Even though my child receives therapy services from two other programs, I can state, without doubt, that the CTL Preschool can take the majority of credit for the tremendous progress made by my son during the last ten months. My son is now interacting with children. While this may seem like a minor step, it is a very important one to us. Before CTL, my son would sit by himself and watch other children, not knowing how to interact with them. Now he plays with and interacts with children, and, in short, behaves like a "normal" child.

My son's behavior has improved dramatically, and his growth as a person has been phenomenal.

> My daughter is less "whiney" and "mommy-oriented." She is self-motivated and can entertain herself. She initiates activities with peers. I was thrilled to hear myself label her "Miss Independent," one day!
>
> Our son thoroughly enjoys his preschool time, and misses it during breaks. He has become more responsive to adults and peers, seeking interaction and attempting to communicate. There seems to be a significant decrease in the amount of inappropriate behaviors when he is in the integrated setting, than when he is in other settings.
>
> My son has an improved sense of self worth and self esteem, and a positive attitude about himself and others.
>
> My daughter has become more outgoing and learned to make friends with children her own age. She has learned to accept handicapped children without fear or ridicule, and this is important to me.

There is no question that the effects of Total Integration on families is a positive, and valued experience. The extent to which these families will pursue future integrated programs for their children, is not known, but their verbalized commitment to do so is strong.

Families' perceptions of children, and other persons with handicaps, were positive at the time of their child's exit from the program. It is interesting to note the number of families who addressed the issue of their children being the "adults of tomorrow," and the extent to which they believed their child would be a more responsible and accepting adult as a result of the child's experiences in a Totally Integrated program.

The results of previous research studies have indicated a less enthusiastic and accepting response from families relative to integration and mainstreaming. The results of the current study are overwhelmingly positive and enthusiastic. The difference in the results may be a direct result of the extent to which the families experiences within the program were consistently positive, coupled with the extent to which families were valued as an integral component of the CTL Preschool Program.

INTEGRATION WORKS

Where Do We Go From Here?

The major findings of the study are captured in the subtitle for this section of the document: Integration Works. The results of the study demonstrate that Total Integration, as operationalized within the CTL Preschool Program, results in identical, positive effects for both young children with handicaps, and their nonhandicapped peers. Both groups demonstrated gains in excess of the time spent in program, and gains were noted across all major developmental areas measured.

Families reported positive effects of the Total Integration model, and indicated that they would continue to seek integrated educational programs for their children. Families attributed the positive changes in their children to their child's participation in the CTL Preschool Program, and the Total Integration format of the program.

The curriculum and program components of the CTL Preschool

Program demonstrated a positive relationship with child skill gains. The Program's environment provided the support necessary to facilitate developmental skill gains, and social/emotional/behavioral changes, as well. The results of the study clearly indicate that the philosophy, operational framework and environment of the CTL Preschool Program, foster, support and facilitate the development of increased skills and positive behaviors for all children.

The size of the research population, coupled with demographic and descriptive characteristics of the group, support generalizing of the research findings to the greater population of young children and their famlies. The Program's philosophy, curriculum, operational framework, and environment are detailed, and easily replicated within any existing program which serves young children and their families. As stated in Chapter One, the CTL Preschool Program is a logical, developmentally appropriate model, which employs no "magic" or "high tech" approaches. The CTL Preschool Program Model can be replicated within any program where professional staff and families believe that all children are, quite simply, children, and that individual differences are a secondary premise.

If Total Integration, as operationalized within this study, facilitates the strong, positive outcomes demonstrated, why do segregated programs constitute the "rule," rather than the "exception?" What prevents programs for young children and their families from embracing the concept and practice of inclusiveness, discarding the concept and practice of exclusiveness? While clear responses to these questions go beyond the scope of this study, several reasons may be postulated based on commentary provided by professionals who have visited the Program.

Program cost and funding sources are a frequently cited reason "why" integration cannot occur. Programs which serve young children with handicaps report that there is no funding source to support the inclusion of nonhandicapped peers in Early Childhood Special Education programs. However, when programs are asked to describe the "costs" they are concerned about, this factor diminishes somewhat in importance.

Integration, basically, costs nothing. There may be a minimal cost factor associated with materials and supplies consumed by nonhandicapped children participating in an Early Childhood Special Education Program, but it is feasible to assess the families of these children a small fee to cover these costs. Although integration would increase the total number of children in a classroom, this does not imply the need for additional paid staff. Family and community volunteers make excellent "staff members," as do high school students, and students from area college programs.

The CTL Preschool Program operates on a budget generated through the payment of a $30 tuition fee, by each child enrolled. These monies support the costs of materials and supplies. Clearly, this represents a "minimal" operational budget, but it serves to demonstrate that integration is not an expensive proposition.

Programs which serve either young children with handicaps, or their nonhandicapped peers frequently cite "attitudinal" issues as the barrier to accomplishing integration. Parental attitudes and fears relative to potential negative effects of integration, are often cited by professionals as a factor which prevents programs from becoming more inclusive.

While family attitudinal issues may constitute a temporary barrier to integration, it would appear that such judgements may well be made before families are presented with the concept of integration. Certainly the families involved in the CTL Preschool Program were unaware of the concept and practice of integration prior to their child's enrollment in the program. Yet, as many families indicated, the concept of integration appeared to make "logical sense," and they were willing to explore it along with their child.

The elimination of family attitudinal factors, as obstacles to the achievement of integration, becomes an issue of education and positive experiences. The CTL Preschool Program began on a small scale, but quickly became a large scale program, mostly as a result of families discussing the program with friends and neighbors. The "open door" policy of the program permitted any interested person the opportunity to view the program, and to see "integration in action." This type of educational and informational activity clearly supports an increase in positive response to, and understanding of, the concept and practice of integration.

Staff training is cited with high frequency as a barrier to integration. Programs which serve nonhandicapped young children report that their staff have no "special education" training, and are, therefore, not able to "deal with" young children with handicaps. Early Childhood Special Education programs indicate that their staff are trained to provide intensive intervention services to young children with handicaps, and are not prepared to "deal with" nonhandicapped young children. Both types of programs report that they do not have "enough" staff to permit integration to occur.

Staff training, as a barrier to integration, can be easily addressed through interagency cooperation and training activities. Early Childhood Special Education professionals could provide training activities to professionals within child care, nursery school, and preschool programs. These training activities could focus on the unique needs of young childrn wih handicaps. Conversely, professionals from Early Childhood Education programs could provide training activities for special education personnel, which focus on typical young child activities, and patterns of typical growth and developent.

Interagency cooperation in cross-disciplinary training often facilitates a shared understanding of the extent to which individual programs are more alike than they are different. This initial level of understanding may well constitute the foundation for professional awareness of similarities between young children, facilitating a diminished focus on differences. Integration is the clear outcome of such shared understandings.

Each of the obstacles cited above, which reportedly prevent programs from adopting integration as an operational philosophy, can be overcome if programs are committed to the philosophical premise of integration. It is, however, the commitment factor which may constitute the greatest obstacle of all.

RECOMMENDATIONS

Let's All Learn Together

The current study effectively demonstrates the positive impact of a Total Integration model on young children with handicaps and their nonhandicapped peers. The study further demonstrates that the impact reaches beyond the children, and includes their families, as well. The curriculum and daily activities of the CTL Preschool are simple and straightforward, and resemble the types of activities engaged in in preschool programs nationwide.

The striking difference about the CTL Preschool Program is its commitment to Total Integration. The strength of this commitment is not just reflected in the enrollment of equal numbers of young children with handicaps and their nonhandicapped peers. The commitment is manifest in the Program's beliefs that all children should be together, that all children learn best from each other, and that all children are more alike than they are different.

It is the philosophical premise of the CTL Preschool Program which permits all children and families to be together, to learn together, and to rejoice in each other's accomplishments. It is the philosophical premise of the Program which promotes a sense of inclusion and community, and dispels the myths of exclusion and disparity.

All too often, people become comfortable with status quo experiences and events. Comfort and tradition become effective filters which prevent people from examining the validity of life experiences and common practices. Comfort in the status quo prevents risk-taking and change.

Integration involves change. It involves changing attitudes and belief systems, and it involves taking risks. Integration is, however, a powerful, positive vehicle which can greatly enhance the lives of all individuals.

The results of this study clearly recommend Total Integration as the least restrictive, most appropriate, early education program for young children with handicaps and their nonhandicapped peers. This study demonstrates that Integration works, and that it works equally well for all children and families. It shows that Integration, continues to involve more than anything, a State of Mind.

> "Try them, try them, you will see.
> If you try them, you will like them."
>
> "Gulp."
>
> "I do so like Green Eggs and Ham,
> I do so like them, Sam-I-Am."
>
> "Yay!", cheered the children at the close of their favorite Dr. Seuss story. Brent stood up, and walked over to Chuck's wheelchair.
>
> "Teacher," Brent said. "You know, Chuck be like green eggs and ham."
>
> Chuck smiled, and laughed, and pressed a key on his Touch Talker.
>
> "Right on!", Chuck said.
>
> "Brent," I said, "Tell me how Chuck is like green eggs and ham."
>
> "Well," said Brent, "People say they don't like Chuck. But if they tried him, they would like

him."

The boys smiled at each other, and the rest of the children smiled too. I turned and said to the staff, "From the mouths of babes comes the true message of Integration."

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APPENDIX A

CTL PRESCHOOL PROGRAM CHILD APPLICATION FORM

University of North Dakota
Center for Teaching and Learning
Box 8158, University Station
Grand Forks, North Dakota 58202
(701) 777-3661

Date of Application:____

Child's Name:____

Child's Date of Birth:__________________ Child's Age:__________

Name of Parent(s)/Guardian:____________________________________

Mailing Address:____

____

Telephone: (Home)___________________ (Work)____________________

Name and Age of Siblings:______________________________________

____

Does your child have any health or medical problems? If yes, please describe:____

____

Does your child have allergies? If yes, please list allergic substances and child's reactions:______________________________

____

Has your child experienced repeated ear infections? If yes, please describe the frequency and treatment:___________________

Does your child experience repeated colds, cough and/or runny nose? If yes, please describe:____________________

Does your child experience speech and language difficulties? If yes, please describe:____________________

Does your child experience motor coordination or other physical difficulties? If yes, please describe:____________________

Does your child experience difficulty with vision or hearing? If yes, please describe:____________________

Does your child have any dietary restrictions or feeding problems? If yes, please describe:____________________

Is your child toilet trained? Yes:____ No:____ Working on it now:____ Please describe your child's level of independence in toileting:____________________

Has your child experienced other preschool or day care programs? If yes, where and at what age:

Has your child been in home day care? If yes, at what age and for how long?____________________

Has your child received services from other agencies or programs such as Public Health, WIC, Infant Development, Preschool Special Needs, etc.? If yes, please list services:____________________

What does your child like to do?____________________

____

What does your child not like to do?____________________

____

____

What skills and tasks has your child learned quickly?__________

____

____

What skills and tasks has your child had a difficult time learning?______________________________

____

____

Has your child had opportunities to play with children of the same age? Yes:____ No:____

Has your child had opportunities to play with older children? Yes: ____ No:____ -- Younger children? Yes:____ No:_____

How does your child relate to and interact with other children?

____

____

The CTL Preschool Program encourages parent involvement in the program. Which of the following activities would you like to participate in? (Your answers are just an indication of your interest, and do not constitute a commitment to participate.)

_____ Observing the Children
_____ Playing with the Children
_____ Leading a Group Activity
_____ Teaching a Specific Skill to a small group of children
_____ Helping with transportation
_____ Preparing Snack Foods
_____ Constructing Materials
_____ Organizing Group Meetings for Parents
_____ Speaking to the Parent Group
_____ Other:______________________________

What interests you about the CTL Preschool Program for your child? ____

____

____

Is there other information about your child which you think we should know? If yes, please describe: ____________________

____

____

What questions do you have about the CTL Preschool Program?

____

____

____

PLEASE RETURN THIS APPLICATION TO:

Dr. Lynne A. Rocklage, Director
CTL Preschool Program
Center for Teaching and Learning
University of North Dakota
Box 8158, University Station
Grand Forks, North Dakota 58202

APPENDIX B

CTL PRESCHOOL PROGRAM BACKGROUND INFORMATION FORM

CTL Preschool Program
Center for Teaching and Learning
University of North Dakota
Box 8158, University Station
Grand Forks, North Dakota 58202
(701) 777-3661

Child's Name:____

Child's Date of Birth:________________ Child's Age:__________

Home Address:____
____

Mother's Name:____
Mother's Age:______ Mother's Occupation:_________________
Mother's Educational Level:______________________________

Father's Name:____
Father's Age:______ Father's Occupation:_________________
Father's Educational Level:______________________________

Number of children in the family:_________

Name and birth date of child's brothers and sisters:

Name:____________________________ Birthdate:______________
Name:____________________________ Birthdate:______________
Name:____________________________ Birthdate:______________
____
____

Were there any difficulties during the pregnancy with this child? If yes, please describe:______________________________
____

Was this child born prematurely? Yes:______ No:________

What was this child's birth weight?_______________________

Did this child require any special medical care or

hospitalization at birth or during the first month of life? If yes, please describe:______________________________________
____

Has this child ever been in the hospital, or been seriously ill at home? If yes, please describe:______________________
____

Has this child ever experienced a serious accident which required medical treatment or hospitalization? If yes, please describe:____
____

Are this child's Immunizations up to date? Yes____ No_____

When was the last time this child was seen by a doctor?
____

Has this child's hearing been evaluated? Yes_____ No_____
If yes, when?___________ By whom?_____________________________
What were the results?_____________________________________

Does this child:
1. Seem to have difficulty hearing? Yes___ No___
2. Turn up the TV louder than other family members? Yes___ No___
3. Seem to favor one ear more than the other? Yes___ No___
4. Appear to be startled by a loud noise? Yes___ No___
5. Seem to hear you if you talk in a whisper? Yes___ No___
6. Make you talk loudly? Yes___ No___
7. Make you frequently repeat what you have said? Yes___ No___

Has this child's vision been evaluated? Yes_____ No______
If yes, when?___________ By whom?____________________________
What were the results?_____________________________________

Does this child:
1. Wear glasses? Yes___ No___
2. Seem to have difficulty seeing things up close? Yes___ No___
3. Seem to have difficulty seeing things at a distance? Yes___ No___
4. Squint his/her eyes when looking at something? Yes___ No___
5. Have eyes that turn in? Yes___ No___
6. Have eyes that turn out? Yes___ No___

Has this child's speech and language skills been evaluated?
Yes_____ No_____ If yes, when?__________________
By whom?____
What were the results?____________________________________
At what age did this child begin to talk?____________________

Does this child:
1. Talk a lot? Yes___ No___
2. Seem to speak as well as other children of the same age? Yes___ No___
3. Speak so you can understand him/her? Yes___ No___
4. Speak so other adults can understand him/her? Yes___ No___
5. Speak so other children can understand him/her? Yes___ No___

If this child does not talk, does he/she:
1. Make any sounds? Yes___ No___
2. Use gestures to communicate? Yes___ No___
3. Use another communication system? Yes___ No___

Do you think this child has a problem:
1. Making sounds? Yes___ No___
2. Forming words? Yes___ No___
3. Putting words together? Yes___ No___
4. With the way his/her voice sounds? Yes___ No___
5. Repeating sounds or words too often? Yes___ No___

What language(s) is spoken most frequently in the home?

____

Does your child experience any of the following?

Asthma_____
Headaches_____
Nightmares_____
Nose bleeds____
Diarrhea_____
Nail biting____
Seizures_____
Indigestion_____
Overtired______
Heart Trouble_____
Thumbsucking_____
Bed wetting_____
Vomiting______
High Activity Level______
Frequent Fevers_____
Sinus Trouble_____
Constipation_____
Hearing Problems____
Vision Problems_____
Allergies______

At home, what does this child like to do best?_______________

____

What are this child's favorite toys?_________________________

____

Does this child enjoy having stories read to him/her?
Yes_____ No_____. If yes, who reads to this child?________

____

What TV shows does your child like to watch?_________________

____

About how many hours each day does this child watch TV?______

Does this child prefer to play alone, or with others?________

____

How does this child get along with his/her brothers and sisters?____

What things does this child do that bothers you?______________

____

Does this child have any special fears, like big dogs,
darkness, storms, etc.?______________________________________

____

Are there things your child does that you think are unusual?

____

Do you have any special concerns about this child?___________

____

What would you like for your child to experience and learn
in preschool?____

____

Thank you for your time and patience in completing this form.

Form was completed by:____________________________________
Relationship to the child:________________________________

APPENDIX C

CTL PRESCHOOL PROGRAM FAMILY QUESTIONNAIRE

Child's Age:_______
Does your child have special needs? Yes_____ No_____

1. What do you like about the CTL Preschool Program?

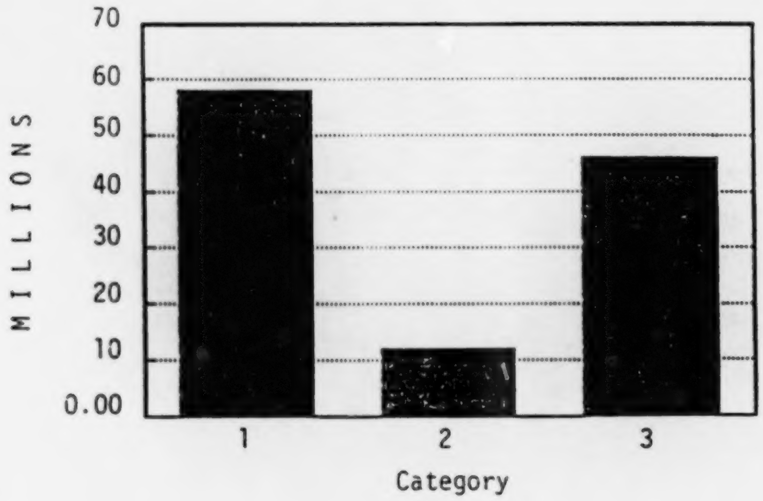
2. What would you like to see improved?

3. How would you say the program has affected your child?

4. Have you noticed any changes (behavioral, educational or social), which you can attribute to attending this program?

5. How do you feel about your child attending an integrated program, made up of both handicapped and nonhandicapped children, in the future?

Thank you for completing this form. Please return it in the enclosed self-addressed, postage paid envelope.



Category:

1 Adults receiving educational training.

2 Adults receiving educational training from colleges and universities.

3 Adults receiving educational training from other service providers.

Figure 3. Profile of adults receiving educational services (Gutek & Tatum, 1984).